The Australasian Journal of Psychology and Philosophy

Registered at the G.P.O., Sydney, for transmission by post as a periodical.

VOL. XI. JUNE, 1933. No. 2.

JUDGMENT.[1]

By W. A. MERRYLEES, M.A., B.Litt.,
Lecturer in Philosophy, University of Melbourne.

I.

THE term "judgment", it is hardly necessary to point out, is used in a number of different senses. This paper is concerned with that sense of the term in which judgment forms the central or basic conception of logic. Now logic is concerned with that which is properly speaking true or false. By judgment, therefore, I propose to understand whatever is properly speaking true or false. I say "properly speaking" to exclude the derivative, metaphorical or analogous use of these terms in such phrases as "a true plane", "a false prophet". In the latter case, what is properly speaking false is not the prophet, but his prophecy. In the former case "true" means "genuine"; a false plane would not really be a plane. This is not the meaning of true in the phrase "a true judgment", for a false judgment is a genuine judgment no less than a true one. There is, however, this analogy between a true plane and a true judgment: the true plane conforms to the standard of planeness as the true judgment conforms to the standard of truth.

I. WHAT CONDITIONS MUST ANYTHING SATISFY IN ORDER TO BE TRUE OR FALSE?

If judgment is whatever is properly speaking true or false, to discover the nature of judgment we must find what conditions anything must satisfy in order that it should be either true or false. Let us, then, start with something which we regard as true or false, and ask, What are the conditions which it satisfies in virtue of which we regard it as true or false? We regard as either true or false an assertion that something is so and so, or that such and such is the case, *e.g.*, "this is red", "silence is golden". We regard an assertion as true if what it asserts to be the case is the case; we regard it as false if what it asserts to be the case is not the case. In both cases we distinguish between what is asserted to be the case and what is the case. This is obvious in the latter case, for to maintain that the assertion is false is to maintain that the two are discrepant. If less obvious, it is equally true in the former case, for to maintain that the assertion is true is to maintain that what is said to be the case is identical with what is the case, and we cannot maintain that two things are identical unless we distinguish them. To regard an assertion as true or false, then, it is necessary to distinguish between what is said to be, and what is, the case. But it is not sufficient merely to distinguish between them; we must also recognize that the assertion identifies them. For it is only if it identifies them, when in fact they are not identical, that the assertion is false; only if it identifies them when they are really identical that it is true. To regard an assertion as true or false, then, we must distinguish what is said to be the case and what is the case, and must recognize that the assertion identifies them.

---

[1] Presidential Address delivered at the Tenth Annual Meeting of the Australasian Association of Psychology and Philosophy, University of Sydney, 19th August, 1932.

It is, therefore, the assertion itself, not our regarding it as true or false, which identifies what is said to be the case and what is the case. Does the assertion itself also distinguish them? Or is it only in considering whether an assertion is true or false that we come to distinguish them? It is true, as we shall see, that from one point of view to make an assertion is one thing, to regard it as true or regard it as false is another. Nevertheless it is the assertion itself which distinguishes them. Unless it did so, it could not identify them. Nor could we, in considering whether it is true or false, distinguish them and treat them as possibly or actually discrepant, if they were not distinguished in the assertion itself. We can regard an assertion as true or false, then, only because it (or the agent in making it) both distinguishes and identifies what is said to be the case and what is the case. It will be convenient to speak of what is the case as "the real", and of what is said to be the case (and generally of anything the similar distinction and identification of which with the real is either true or false) as the construction. In this terminology, an assertion is true or false because, and only because, it identifies with the real a construction which it distinguishes from it. Consequently we can say that anything which thus identifies with the real a construction which it distinguishes from it is either true or false, and therefore is judgment. Further, seeing that it is only in virtue of the fact that it thus identifies with the real a construction which it distinguishes from it that the assertion is true or false, we can also say that judgment, as whatever is true or false, must necessarily identify with the real a construction which it distinguishes from it. To judge, therefore, is to set up as identical with the real a construction distinct from it.

To confirm the above argument, I propose now to consider in what sense it is one thing to make an assertion, another to regard this assertion as true or as false. The difference appears to be that in the first case you have simply an assertion, in the latter case the contention or assertion that this assertion is true. That is to say, in the second case you seem to make a further assertion about the original assertion. Where this occurs, W. E. Johnson speaks of this further assertion as a *secondary* proposition, and of the original assertion as a *primary* proposition. But he denies that the assertion that an assertion is true is genuinely secondary. For, though he gives " p is true " and " p is false " (where p stands for a primary proposition) among his instances of secondary propositions, in the text he urges that, though " p is false " is a secondary proposition, " p is true " is not, on the ground that " p is true " is reducible to the simple proposition " p ". " Anyone who asserts the proposition p is implicitly committing himself to the assertion that p is true. And again the *consideration* of the proposition p is indistinguishable from the consideration of the proposition p as being true ; or the attitude of *doubt* in regard to the proposition p simply means the attitude of doubt as regards p being true."[1]

I have come to the conclusion that Johnson is not justified in maintaining that " p is true " is not, whereas " p is false " is, secondary ; each is secondary from one point of view, and not from another. *Logically* " p is true " is not secondary, because, in asserting " p is true ", you are committing yourself in precisely the same way, or to precisely the same position, or, in other words, you are identifying with the real precisely the same construction, as if you assert " p ". But the same is true of " p is false " ; logically this is indistinguishable from " not-p ". Both propositions commit you to precisely the same view, set up the same construction as identical with the real. On the other hand, it is in different " narrational " circumstances that we assert " p is true (false) " and " p (not-p) ". We do not normally say " p is true ". We say simply " p ", unless we are considering whether an assertion or suggestion made by someone else (or by ourselves at an earlier date) is justified, or are reaffirming an assertion which someone has questioned, or where " p " is the opposite of what we or our audience would expect ; in short, unless we are reaffirming a proposition already asserted, suggested or entertained. It is only in such " narrational " situations as these that we adopt the form " p is true " ; and we then adopt it in order to indicate a situation of this kind. Consequently this form, as well as identifying with the real the same construction as " p " identifies with it, in addition indicates this kind of narrational situation ; *i.e.*, that we are reaffirming a proposition already asserted, suggested or entertained. From this point of view we are making an assertion about another proposition, *i.e.*, our assertion is secondary. Though from a logical point of view, then, " p is true " is not secondary, from a narrational point of view it is. And the same is true in regard to " p is false ". It is only when we wish to indicate a narrational situation in which we are making an assertion about a proposition already entertained that we choose " p is false " instead of the logically identical " not-p ". From a narrational point of view, then, both " p is true " and " p is false " are secondary ; from a logical point of view neither of them is. Consequently it is from a narrational point of view that it is one thing to make an assertion, and another to regard this assertion as true or false. From a logical point of view, however, the two are identical. That is why there is no difference between the conditions which must be satisfied in order that anything should be *regarded as* true or false, and those which must be satisfied in order that it should *be* true or false.

---

[1] " Logic ", Vol. I, p. 52.

II. DOES JUDGMENT NECESSARILY INVOLVE ASSERTION ?

So far we have maintained that an assertion, in that it is necessarily either true or false, is judgment. We must now raise the question, Does judgment, as that which is either true or false, necessarily involve assertion ? Is every judgment an assertion ? We saw that every judgment necessarily sets up as identical with the real a construction distinct from it. Now, if thus to set up a construction as identical with the real is to assert, then obviously every judgment is an assertion. But surely to identify a construction with the real is to make an assertion. Hence, every judgment is an assertion.

Johnson, however, had he used my terminology, would have denied this. He employs the term " proposition " instead of (as I do) " judgment ", for " that of which truth and falsity can be significantly predicated ". Assertion (or judgment in the sense in which he employs the term), he maintains, is simply one of the attitudes[1] which we may take up towards a proposition (others being doubt, interrogation, *et cetera*), without in any way modifying its content. If so, the proposition as such does not involve assertion.

The question at issue is, Can anything which does not as such constitute assertion be either true or false ? That it cannot, can be seen by depriving any assertion of its assertiveness. For instance, " this rose is red " is an assertion which is either true or false. But if, by omitting the " is ", you deprive it of its assertiveness, you may interpret the result (this rose . . . red) as a question, or as a suggestion, or as meaningless, but in any case you no longer have anything which is true or false. To get back to anything true or false you must restore the assertion by reinserting the "is". Johnson seems virtually to recognize this, for he admits that it is only in virtue of the fact that the proposition is "not so to speak a self-subsistent entity, but only a factor in the concrete act of judgment" (or assertion) that it is true or false. Strictly speaking, what is true or false is the asserting of the proposition. But, he urges in defence of his own position, as "an attitude of assertion is to be approved or condemned in total independence of the person asserting or of the time of his assertion, and in exclusive dependence upon the content of his assertion",[1] *i.e.*, upon the proposition asserted, it makes no difference if we say instead that the proposition is true or false. But the fact that whether an assertion is true or false depends, not on when or by whom it is asserted, but solely on the content asserted, does not mean that this content would still be true or false even if it were not asserted at all. This content is simply the construction which, in the assertion, is identified with the real. Now it is not the construction, but the identification of it with the real, *i.e.* the assertion, which is true or false. For to say that a judgment is true means that the construction which it identifies with the real is identical with it; to say that it is false means that the construction which it identifies with the real is not identical with it. Consequently Johnson must either admit that the proposition is not as such true or false, but is simply the construction, the identification of which with the real is true or false; or else he must admit that the proposition itself involves assertion. I propose, as is usual, to apply the term "proposition" to "a judgment expressed in language".[2] Johnson's criticism[3] of this use of the term, on the ground that verbal expression may be obscure, ungrammatical or ambiguous but cannot be true or false, overlooks the fact that the proposition is not the mere verbal expression, but the judgment as verbally expressed.

---

[1] He also speaks of all these attitudes as variations of the assertive attitude.

As it was in order to explain the relation between judgment and thinking which is not judgment that Johnson introduces his conception of the proposition as something to which we take up different attitudes, to make our criticism of this conception conclusive, it is necessary to indicate in what other way such forms of thought as doubt, interrogation, *et cetera*, are to be explained. I have not time to go into this question at all fully. Briefly, however, the position seems to be that these forms of thought are judgments which are at some point incomplete, qualified or suspended. A question expresses part of a judgment, and asks how it is to be completed. This is clear from the fact that a single word, in answer to a question, conveys a complete judgment. For instance, "red", in answer to the question "what colour is it?" conveys the judgment "it is red". A suggestion is a judgment whose assertiveness is suspended pending further investigation. If the restriction on its assertiveness is removed, it immediately becomes a judgment. Thus the suggestion "perhaps it is red" becomes the judgment "it is red" as soon as we remove the restriction on its assertiveness imposed by the "perhaps". In the case of doubt, we have a suggestion which we desire to convert into a judgment, but, owing to the evidence being insufficient or inconclusive, we cannot decide whether this is to be done by accepting or by rejecting the suggestion. An opinion is a judgment, the assertiveness of which, though not suspended, is qualified (and may be qualified in various ways and to varying degrees), owing to the fact that the evidence, though pointing in one direction, is not altogether conclusive.

---

[1] Vol I, p. 4.
[2] Keynes, "Formal Logic", 66.
[3] Vol. I, p. 1.

III. JUDGMENT AND APPREHENSION.

The next question we have to consider is: How is judgment related to apprehension? This resolves itself into two questions: first, does judgment necessarily involve apprehension?; second, is all apprehension judgment? Let us take these in turn.

I may, of course, understand a proposition, that is, apprehend its meaning, without apprehending that which the proposition asserts, and also, we may add, without myself asserting it. But this is irrelevant. Our question is whether judgment involves apprehension of that which it asserts, by the person who makes the assertion. It may seem at first sight that the answer is simply that it does not. For we normally regard any statement as a judgment, though we do not know whether the person making the statement is apprehending that which he asserts, or even know that he is not. We frequently make judgments when we do not ourselves, or do not at the moment, apprehend that which we assert. On closer examination, however, it is apparent that judgment does invariably involve apprehension. We do not regard a statement as representing a judgment unless we believe that the person making it has ground for doing so. That ground must consist in apprehension, and must ultimately involve the apprehension of the fact asserted. Thus, my ground for making a judgment may be that I remember having formerly apprehended, *i.e.*, apprehend that I formerly apprehended, that which I assert. Where my ground for making a judgment is the testimony of another, I must apprehend or remember having apprehended his statement, and I must believe or take for granted that he has ground for making this statement. Ultimately this ground must consist in the apprehension of the fact asserted.

In discussing the second question, I propose to restrict myself to the kind of apprehension which is most likely to appear not to be judgment, namely, sense-perception. We ordinarily seem to distinguish between perceiving an object and perceiving that an object is so and so. Thus I may say that I saw Jones, or that I saw that Jones had a new suit. Perception of the latter kind is certainly judgment. For what I perceive, namely that Jones has a new suit, is either true or false, and anything which is true or false is judgment. But, it may be said, what we have here is not perception, but a judgment based on perception. We perceive Jones and then, on the basis of this perception, go on to assert that he has a new suit. The first kind of perception, perception of an object, is the only kind of perception.

Let us then consider the nature of perception of an object. Perception of an object is always complex. It involves a reference both to a *that* and also to a *what* ; I perceive the object before me as so and so. This is most obvious where I make a mistake. For instance, I may perceive the object before me, which in fact is a horse, as a cow. But it is equally true where my perception is veridical. There I perceive the object before me, which in fact is a horse, as a horse. It is true even where I cannot see what the object is. Here I perceive the object before me as something. To perceive an object, therefore, is always to perceive what is before me as so and so. It, therefore, involves the assertion that the object before me is so and so. Consequently the objector's contention was precisely the reverse of the truth ; perception is always of the latter kind. Hence perception is always judgment.

At the same time, sense-perception is a peculiar type of judgment. It implies the actual presence of the object. And it cannot be exhaustively expressed in a single proposition. Not only has the particular object, which we say we perceive, a more or less vaguely apprehended background of indefinite extent and complexity, but that object itself embraces an inexhaustible, but at least implicitly apprehended, complexity. Our statement of what we perceive indicates only the salient features of this total apprehension. It does not refer to the features which we only implicitly apprehend. Some of these features have never been explicitly apprehended ; others we have explicitly apprehended, but now take for granted.[1] Both, however, make a difference to our total perception, and both are affirmed. Consequently, our total perception is not merely a relatively inexhaustible source of propositions, but is itself judgment.

(*To be continued.*)

---

[1] See Mitchell, "Structure and Growth of the Mind", Lect. xi, sects. 5–9.

WHAT IS PHILOSOPHY?[1]

By W. R. Boyce Gibson,
Professor of Philosophy, University of Melbourne.

Philosophy, like everything else, has many definitions and shows this or that facet of its many-sided nature according to the viewpoint from which it is regarded. For the student interested in Courses it is a subject of questionable eligibility in the Arts curriculum ; for the Orphic and Stoic in ancient days it was a religion and a way of life. How, then, can we reach its essential idea?

Let us first look into what is nearest to us, namely ourselves. Philosophy is at any rate nothing foreign to us, a stranger to whom we need to be introduced. No one of us who has ever wondered at the mysteries of existence or grown dizzy over the meaning of his own Ego can pretend to be an outsider in the matter of philosophy. There is something in us which we feel to be in intimate and sympathetic contact with the nature of things, linking us intimately and indisseverably with the universe as a whole. In this insight indeed lies the whole promise of philosophy. Let this, then, be our first thought concerning its essential meaning. The active, living source of philosophy is in our own personality. It only needs tapping and releasing.

If, on this point, we seek further explanation, the reply is clear. The essence of philosophy is *Reason*, and with all our follies we are at heart rational beings, with a more or less strongly developed intellectual curiosity. This may figure at first as mere wonder. We look about us in some cool moment of reflection and wonder why we are here at all, or what sort of ending there can be to Time, Space and Self. But wonder soon fatigues if not supported by thought, and it is in proportion as we give this support and dig assiduously into all these mysteries with a view to distilling out the soul of reason in them that we become philosophers, for Philosophy is just *the Spirit of Reason in Human Nature*. That is its central meaning and the secret of its vast significance for life.

I wish to emphasize from the outset this essential and intimate connexion between Reason and Philosophy. Whether Philosophy proves valuable to us or not depends on the value we set upon Reason and being reasonable. It is not so much the assured possession of Wisdom itself as the love of Wisdom and the quest after it which characterizes the philosopher. The very name "Philosophy" bears witness to this. And so does the early History of Philosophy. Socrates, like Pythagoras before him, would not allow that he was wise except in the sense that he was wise enough to know that he wasn't wise. It was in this sense that he interpreted the Delphic Oracle proclaiming him the wisest of men, and it was in this sense that he interpreted Philosophy's first requirement. He held that as the first essential of Philosophy there must be a negative movement, a repudiation of all fancied wisdom, of all mere opinion that could not stand the test of honest examination: this radical self-criticism was to him the essential preface to the positive philosophic task of seeking real definitions of the virtues and other realities capable of weathering all criticism and so giving us real knowledge in place of ungrounded opinion. So Socrates. And the father of Modern Philosophy, René Descartes, shared this conviction with him. Once at least in a lifetime each one of us, if philosophy means anything to him, will, he says, deliberately seek to doubt all his so-called knowledge, and will not rest content till he has discovered some logically indubitable minimum upon which he can then erect with assurance a fabric of real knowledge.

---

[1] A paper read before the Melbourne University Philosophical Society on 27th March, 1933.

Now it is significant that in both these two great historic cases the adventure of the Reason in its search for knowledge consisted essentially in the vigorous application of a definite method. Socrates aimed at securing rigorously tested definitions through the earnest co-operation of relentlessly critical minds with others in whom knowledge was but a thin, though an aspiring, flame, whilst Descartes elaborated a definite method for raising knowledge on to an indubitable foundation. On one occasion, being called upon to speak after a meeting of a certain philosophical society at which a distinguished visitor had been giving a philosophical address, he remarked that it was all very nice indeed, and that he had enjoyed it all immensely, but that it was not philosophy at all, since it lacked the two philosophic essentials: *method* and *standard*. The speaker had not supplied any touchstone or test for distinguishing between false and true, and had supplied no method for directing the mind in its search after the truths he had been discussing.

We see, then, that the philosophic reason requires a preliminary purifying of the mind from all its irrational cant and rubbish, the fixing of a trustworthy starting-point, and the development of the truth-quest from that starting-point according to strict method and in the light of definite and appropriate standards. The method may be very simple, it may consist of just a few rules: quite enough, Descartes assures us, so long as one applies them methodically with unremitting fidelity. But there must be a rational method, and sincerity, honesty and fidelity in its application.

Imagine yourself committed to carry out without demur whatever Reason requires of you: imagine yourself the faithful servant of Reason, and you will then be filled with the true spirit of philosophy, you will know the meaning of Philosophia Militans as Socrates first understood it. You will know the inner meaning of the Socratic precept: Virtue is Knowledge. That precept had what we might fairly call a religious foundation. It arose from solicitude concerning the salvation of the soul. What is it that can purify and save the soul? The answer given was that the soul's proper purification was through knowledge, through the quest of Philosophy. The soul is rational in its essence, and therefore Reason alone can save it. Hence the fervour put into philosophic analysis by the initiates of the Pythagorean Order who held to this belief, and among whom Socrates was, in all probability, a prominent figure.

At a somewhat later period B.C. the Stoics spoke of the Reason as the Christian speaks of God. Reason was the Father of us all—our sole concern is to foster and develop the Reason within us, and to smother mercilessly all the excited concern our lower nature is apt to show in obtaining mere advantages such as riches or good health, and avoiding the corresponding disadvantages: poverty, sickness, death. What have mere advantages or disadvantages to do with our rational integrity? No! Our emotional life must be wholly dedicated to the service of Reason, and its whole enthusiasm concentrated on the pattern of the wise man.

In another direction, with Plato and with Aristotle, we have the development of a *rational Ethics*, the essential note of which is balance, order, measure, proportion, the happy mean between excess and defect, serenity and beauty of behaviour, the control of all partial desires in the interest of the life as a whole; and showing, over and above all this, strict adhesion to the Socratic maxim that the unexamined life is not worth living, and the free acceptance of the Spirit of purifying Reason as the one and only motive of the good life.

Wordsworth could say that he knew nothing so fair as the smile upon the face of Duty. The philosopher, in a similar spirit and manner, would be prepared to say that he knew nothing so fair as the smile upon the face of Reason. But, if we are to see the smile, we must not interpret Reason too abstractly. With Plato it was a love and a quest as well as that active contemplation born of wonder and curiosity which connects all things through argument and searches out the grounds of all things. Philosophy has been defined as "reasoned truth", and the stress laid on the reasoned argument through which positions are explained and defended. The emphasis is indeed well placed. Plato himself launches forth in the Phædo against the haters of reasoned discourse, the misologists, as he calls them. We must be ready as philosophers to sustain the argument and abide by the reasoned conclusion. And as for Truth, which is the Ideal Standard of all Reasoning, let us listen to Hegel when he says : " Truth is a noble word, and the thing is nobler still. So long as man is sound at heart and in spirit the search for Truth must awake all the enthusiasm of his nature." And yet, with all this respect for what is closely reasoned, we must not identify reason with reasons. Reason is a far deeper and broader thing than the reasons of inference and proof, and has ramifications that extend far beyond the Reason of Philosophy. Science certainly gives reasons, but Nature gives none ; and yet reason is present in both. The Reason in Nature shows itself in the discoverable natural *Order*, and in the laws upon which that order depends. It does not express itself in the conceptual terms of knowledge, but as physical movements and changes in accordance with orderly patterns.

So there is a Reason in Art that is deeper and more authentic than all the reasons of Æsthetics, a Reason in Religion deeper and more authentic than all the reasons of Theology, a Reason in the Truth of things more authentic and fundamental than all the reasons of all the philosophical systems.

I don't wish to discuss these profundities, or to defend my theses against Kantian criticism. I wish only to point out as my own conviction that if the conception of philosophy as the Spirit of Reason in Man is taken seriously, and proper account taken of the many avenues in and through which such Reason may operate, it must be recognized that Philosophy in its fundamental meaning pervades the whole of our life and experience, and is present wherever, in Art, Religion, Statecraft, that spirit is present which at once purifies from disorder and inspires developing things with the orderliness needed for their proper development. A great symphony or sonata is a masterpiece of ordered beauty, and its composer, imbued with the spirit of Reason, must be welcomed as essentially philosophical in his feeling for order and measure. Philosophy in this sense is *in* all without being itself all ; for Art with its ideals of beauty and expressiveness makes similar invasion into science and philosophy, and is everywhere the creative impulse that vitalizes and renews. When Poincaré tells us that it is the expressive beauty of mathematical argument, set down symbolically, which serves him as motive and standard in mathematical discovery, we realize how busy the artist is even in the remote and icy regions of the higher calculus. And there is also a beauty of conduct and a beauty of holiness. And it would, I think, be easy to show how the sense of the presence of something divine, present like the Ideals of Beauty, Truth and Goodness in all our experience, and yet significantly transcending it at every point, brings religion in its most fundamental and least official form into all the highways and byways of our rational life, invading and inspiring Art, Philosophy, Morality. So Philosophy is certainly not *All*. Its religious ideal is Truth, not Beauty nor Virtue. And its Ideal is Truth, first in a wider, and then in a narrower and more specific sense. In its widest philosophic sense there is truth in every region of aspiration : in art, morality and religion as well as in the quest for knowledge. There is truth in beauty of line and of phrase, in all the balanced proportions of beautiful things ; there is truth in life that conforms to its own laws of development, or brings some fresh order and balancing into the social world ; there is truth in ordered scales of moral preferences and in the sincerity which, as we say, rings true.

But in a narrower and more familiar sense, the Truth Ideal is restricted to the region of Theory, and is figured exclusively in terms of propositions expressed in conceptual form. In this narrower sense Philosophy is not the immanent Spirit of Reason, but the Spirit of Reason working through the reasoning intellect and clothed in the raiment of language. It is at this point that it becomes necessary to distinguish it from Science, for Science, too, works through the Intellect and expresses itself in technical speech. The standpoint of Science, I take it, is that of ordinary sense-perception. The sensa—colours, sounds, scents, and so forth—serve as signs indicating a reality beyond themselves, an *external* world independent of the observer and all his subjective dispositions—a causally-ordered world in space and time. The scientist, approaching nature from the outside, can only make guesses concerning the precise form assumed in any given context by the underlying causal order which he postulates ; he makes hypotheses and tests them, and in this way the sciences of nature are gradually and inductively built up. In dealing with living organisms the externality of the standpoint may be somewhat modified. We are still at liberty to treat organisms merely as mechanisms in which the action of any part is held to be completely determined by the actions upon it of adjacent parts in space and in time, and this many biologists do. But other biologists hold that in the sciences of life the functional viewpoint must dominate the mechanical. According to the functional viewpoint the action of the part is determined in relation to the needs of the organism as a whole, and something akin to explanation in terms of ends and means is accepted as the characteristic method of interpretation. However, this teleological type of explanation can be ultimately justified only through our own direct experience of ourselves as conscious beings. Being free to take the inner viewpoint and to observe ourselves reflectively we know at first hand, and as a matter of immediate experience what it means to be striving towards an end and utilizing existing causal connections to serve as means for the fulfilling of that end. We are not only living, but purposive, beings, and through our own self-consciousness we can observe our own activities directly, searching out from within their motives, functions and aims. For any central and direct appreciation of individuality, the inner viewpoint is essential, and to the extent to which this is the case, the standpoint of study becomes primarily philosophical.

We may put it thus: The vision which is at once inward and synoptic, grasping experience inwardly instead of nature outwardly, and grasping it as a whole and in relation to what is personal and ultimate—this is specifically philosophical as distinguished from scientific vision, and it is part of a philosophical training to acquire it. We must release and enjoy new sources of intuition. Sense-intuition is but one form of direct relation to reality. The intuition of motion is already something different—so, too, the intuition of the spatial and the tantalizing intuition of time. Self-intuition, again, and with it the intuition of purposive activities, the intuition of Ideals, Values and real possibilities—of all this we have direct experience, as so many different contacts with reality—and it is the function of philosophy to awake and train our intuitional capacity, so that we see not with our eyes only, but with the mind in all its totality of receptive functions. The intuition of Ideals and their distinctive values, and of ourselves in relation to these may be referred to as spiritual vision. We use our eyes, and we see forms, colours and varied lights and shades. But it is a new light that graces the visual field when we see these forms and colours as beautiful. Such transfiguring light is not peculiar to the world of Art. The world of conduct is also spiritually lit with its own transfiguring vision of goodness and affection. Philosophy differs, then, from Science through its extended vision, through its more varied and deeper contact with reality. Science is concerned only with the interpretation of Nature, Philosophy with that of Experience, and of the selves and worlds which that experience serves to reveal. With regard to Psychology we may at any rate say this, that in so far as it respects the unity and continuity of the individual's immediate experience—the experience of beings capable of the Consciousness of worlds and of reverencing Ideals of Art, conduct and thought, it is essentially a philosophical discipline sharing the inner viewpoint and the varied vision.

It is a further question whether under these conditions the methods of philosophical study can be as rigorous and thorough as those of science. They cannot of course be as *exact* as the sciences which are regulated mathematically or experimentally, but in one sense they will be more thoroughgoing, inasmuch as it is the function of philosophy, in one or other of its aspects, to criticize the assumptions which the sciences make, but leave unconsidered. All sciences assume the active presence of the personal observer and reasoner, but do not make his personal nature part of their subject-matter. They assume time and space or time-space, but they have no theory of Time or Space, for they are not interested in these as lived or experienced, but only as measured. Philosophy stung by a sense of the Infinite contemplates the methodical exploration of the Universe as a whole and of all its main regions. It is interested not only in a much wider reality than Science affects, but also in those vast problems of Knowledge and Valuation wherein subject and object are most intimately linked together. Philosophy is therefore more thoroughgoing than Science in the sense that it thinks things out further and more comprehensively, and it is certainly no less logical, if necessarily less exact, in its estimates and less precise in its verifications. But we must make a distinction here within the realm of philosophy itself. There is the philosophy which aims at a comprehensive synopsis of the main problems of life and of the Universe as a whole. It aims at a life-view or world-view, as the expression goes. It has fundamental affinities with poetry which is also like itself a criticism of life, and it allows full scope to the speculative imagination. Of these philosophical systems there are as many different kinds as there are different kinds of philosophers or different angles of philosophical vision. But there is another type of philosophy, a type which eschews poetry and has affinities with science, and indeed seeks to outdo science in rigour and precision. It would, like science, eliminate all personal equation and fix all its findings in a form that admits of being indefinitely continued and amplified from one generation of thinkers to another, so that philosophers shall all consolidate their common labour instead of breaking out into independent speculation vitiated by some purely personal idiosyncrasy, each setting up his own separate system against the rest. The Phenomenology of Husserl and his followers aims at this thoroughgoing rigour, and it regards the speculative world-views and life-views as amateurish, subjective, unphilosophical. We need not be so extreme. The logical and the phenomenological foundations of philosophy are certainly most important, but so are its contacts with life and conduct and the rigidity required of the one may be deadening to the other. Let us then accept this twofold conception of philosophy as inwardly related to poetry and religion, on the one hand, and to science and mathematics on the other. The philosophic Reason is broad enough for both. And we may now turn as we eventually must if we hold philosophy as we do to be a criticism of life and thought, to the moral and political philosophies, the main function of which is to relate human life and its social problems to fundamental principles and intrinsic values.

I hope no one will imagine that philosophy as the Theory of Practice, and in virtue of the pressing nature of things practical and their inseparability from the issues of right and wrong, may forget its fealty to the Reason, and probe, exhort, denounce in the spirit of the prophet or open propagandist. Socrates no doubt did this, and so have others like the late Rudolf Eucken of Jena. But there was the Socratic method, the method of definitions, and Eucken had his own noölogical dialectic. In both cases the philosophy as such must and will be judged by its principles and methods and its faithfulness to these. Our practical needs may set the problems for our moral and political philosophies, but they can prescribe neither their methods nor their principles. To any call for practical assistance philosophy, whether theoretical or practical, can respond only in its own way. To give assistance and that speedily is human, but it is not as philosophers that we meet emergencies. The practical disciplines, in so far as philosophical, are concerned not to foster or to realize the good, but to present it in a *true* light. Like all organs of the conceptual Reason the practical disciplines aim primarily at presenting the Truth, and of presenting it clearly and consistently. *Morality*, of course, *is* directly concerned with the spread and practical realization of Moral Values in the actual conduct of life, but Ethics or Moral Theory is not itself Morality, but as a theory is concerned with the *truth* of all this and its presentation in verbal form.

This does not mean that there is no essential difference between those types of philosophy which aim at the organizing of *knowledge* and the *practical* disciplines concerned with the conditions of action and production, and with value-judgments of a practical kind. The difference is indeed important. The movements of the moon are not in any way affected by any ideas astronomers may have regarding gravitation : the moon is not troubled by the differences between Newton and Einstein. On the other hand the activities of human minds may be very much affected by ideas of an ethical or æsthetical character. Morals may be guided or misguided, and that most effectively, by moral or immoral ideas. None the less moral *philosophy* is limited to searching and setting out systematically the facts and truths concerning conduct and its standards. Others, no doubt, will concentrate on the realizing of their ideas in actual practice, but it will be as social and political workers, not as moral or political philosophers. The philosophy may be greatly assisted by such action, being brought thereby into living, fruitful contact with present-day facts ; but it remains philosophy only so far as it remains faithful to its own methods. These will be the methods proper to truth-enquiry and be determined by truth-ideals and by logical standards. They will not be those proper to the realization of some practical object. The practical object has concrete individuality and needs to be established as a going concern in the world of affairs. In establishing it we do not ask whether it is true, but whether it is useful and right that it should be so established, and we concentrate on the practically effective ways of bringing it into existence. All this has a great deal to do with the proper conditioning of practical life, but philosophy is something different. Even as a search or a quest, it is a search or quest for truth : as such it is an essential activity of our spiritual life, in brief—a form of life, but a form with a clearly-marked ideal and with methods of enquiry determined exclusively in their main direction by this ideal. No question in philosophy is more fundamental than the question : What is Truth ? In philosophy the usefulness of an idea depends on its truth-producing power : ideas are useful in proportion as they are true and not true because they are useful or successful in practice.

It is important in this connection not to confuse Ethics with Morality. Morality is primarily and essentially a matter of the *will*—the will being the whole personality considered as active in certain specific ways, in control, deliberation, preference, decision, resolute action. In deliberation again we weigh alternative courses against each other, not to decide which is the more true (as in the balancing of scientific hypotheses), but which is the better, and in last resort which is best, *i.e.*, morally best. As moral agents our concern is not to weigh mere advantages against mere disadvantages on the one hand or on the other to compare our ideas with existing facts. The *moral* judgment posits this as rationally better or worse than that, or this as right and that as wrong. But moral philosophy or ethics, on the other hand, to which all moral judgments are mere data, is essentially concerned with conceiving the moral situation *truly* : like science its leading categories are the true and the false. Ethics aims at being as true as possible to the complex facts of the moral life, true to its phenomena, to its values, and to the intricacies of its ultimate problems, like those of freedom and of evil. If we say that an ethical discussion is valuable we mean that it is valuable through its truth, through its insight into the facts of the moral situation, through its clear grasp of moral principles, and through the explanatory power it reveals in relation to the perplexities of moral experience. As moral philosophers we are therefore fundamentally theorists, though our concern is with the practical, with judgments concerning what is better and what is worse in the scale of moral values. Briefly, we are concerned with moral issues, but our concern is to reach the truth about them, so far as that is theoretically possible. The enacting of our best insight may be a moral requirement, but it is emphatically not one that can be exacted of any kind of philosophy.

An objection may here be raised. As agents in a moral situation, it may be asked, under circumstances where choice is required and decisions must be made, are we not *rational* beings, using our reason to choose and decide; and if we *thus* use our *reason*, are we not acting as philosophers should do, that is, acting rationally? Certainly we are, for even philosophers are moral beings, but we are not acting as philosophers should do *qua philosophers*. The will has its own logic, the logic of practice. Unlike the intellect which condemns ideas if they do not agree with facts, it condemns facts if they do not fit in with approved ideas. It thinks only in the interests of action and reform, and seeks not truth but always some form of betterment, whereas the only kind of action that is properly philosophic is the activity of reflection, the activity of Reason directed towards the discovery of Truth.

There is indeed a wide sense of the term "practical" which permits the inclusion of the theoretical interest under the practical interests of human life. Underlying all intellectual reflection is the Will in its special form of the Will to Know, the Will to know the Truth. Here the leading idea to which facts must submit is that facts are sacrosanct and that all ideas which the facts refuse to endorse stand thereby condemned. The postulates of scientific enquiry, as distinguished from specific hypotheses, are forms of the Will to Know, and as they form an integral and indispensable part of every science and specify the categories and forms of explanation which can alone be regarded as relevant and legitimate, we see that Science as a Truth-quest rests on the Will and is governed by the Idea of the Good. And the same holds good of Philosophy. It, too, rests on the Will to know the Truth, and has its postulates which, as such, are neither true nor false, but good or bad, serviceable or unserviceable. To this extent the Will always holds the Intellect in fee. Truth is one of the most fundamental forms which the Willed Good can take. The Idea of good to which facts are called on to submit takes, in science and philosophy, the form of the Idea of complete subordination of concept to fact.

But within the limits of the Will to Know, Philosophy remains a function of the Reason, exclusively concerned to discover the truth about the Universe as it is, and to display at every point the requisite vision or intuition. Moreover, whatever the special form of intuition involved, the general capacity to view anything sympathetically and synoptically, inwardly and as a whole is philosophically vital. But this attitude gives the first intimation only, the impact on our sensibility. The interpreting, the inferring, the connecting, the critical regress, the establishing, the justifying—this is the special work of the Reason.

But let us not view the Reason abstractly or identify Reason with reasons or even with the mere giving of reasons. Reason is not only the argument but the aspiration which ideally directs it. It not only knows, but loves. It is a lover of the truth and a hater of lies. Such indeed was Plato's conviction. It is this complex unity of intuition, intellect, aspiration and love, *as united in the quest for Truth* that we have in mind when we insist, as well we may, that Philosophy is the very Spirit of Reason in Man, and that it is with the Reason that its last word rests.

ABOUT THE ART OF PAINTING.[1]

"All Art is Nature Understood."

By RONA BLOGG, M.A.,
Melbourne.

I SHOULD confess at the outset that as a practising artist belonging to a particular school of thought in art,[2] I am likely to be prejudiced in favour of one interpretation of the world of art. So I am willing to admit, if you want me to, that all that I am going to say is really in the nature of a personal confession of faith. My only excuse for making generalizations at all is that as a school we have honestly tried to get back to first principles, and in so far as these are first and right, they are capable of being used as lights in the interpretation of all forms of art whatsoever. My own school of art stands for fidelity to Nature, truth to Nature. That phrase is as ambiguous in meaning as it is simple in wording, but I do not intend to explain it now. Its general meaning you all know, and the implications of it will be drawn out in what follows.

Critics and lovers of art are more ready than the artist to tell you about the meaning and value of works of art. To them art is a world of its own, from which their minds feed and draw inspiration, but to the artist the real world of Nature is that source of inspiration, and to him art is merely the result of a certain activity, the product of his attempt to grasp through vision the meaning of his world. It is as an activity, not as a world of beautiful products, that I wish to speak about the art of painting. For this reason I have divided my subject under three headings: (I) The Artist, (II) His Subject, (III) His Materials or Tools.

We are, of course, all through, talking about fine art as distinct from applied art, which is connected with the adornment and design of useful articles, or the use of pictorial art for purposes of illustration and diagram. Much that is called fine art also belongs to this category—the "every picture tells a story" type of thing so popular in the Victorian era. Fine art, which includes painting, sculpture, drawing, etching, *et cetera*, is the language or means of expression of man's æsthetic appreciation of his world, an expression of what he values for its own sake, and within that world of expression there are as many styles as there are preferences for this or that characteristic of Nature.

---

[1] This paper was originally read before the Maranedi Club, Melbourne, February, 1933.
[2] The "school" of Mr. Max Meldrum, through my teacher, Mr. Archibald Colquhoun.

(I) THE ARTIST.

All artists, in spite of the diversity of talents, tend to come within one of two main groups : the imitative or realist and the creative or idealist, sometimes called the decorator. (One cannot here enter into a metaphysical discussion, but if we did it would be to demonstrate the paradox that realism is the greater idealism.) The imitative artist is the one who is conscious of really finding values of beauty in the order of Nature as it appears to his vision, and his effort will be to understand and interpret Nature in her own terms of visual appearances. The creative artist, on the other hand, is he who finds beauty in the relations of ideas and forms of his own invention, *i.e.*, other than as they are related in Nature ; or he finds beauty in the portrayal of one aspect of Nature in terms of another aspect, as does all " metaphoric art ",[1] giving full play to fancy and inventiveness. If we must choose, it seems to me that imitative art must always claim our most serious consideration. While creative art will never cease to charm, and even to amuse, it remains but an adornment to our thought. But imitative art has the true cultural value of throwing us back into our own sensuous world, stimulating us to appreciate and understand that more fully, training our feeling for it through observation and contemplation.[2]

What is implied in all imitative art is the belief that natural appearances do express the nature of reality. The outer semblance of the world grasped through vision does not belie its spiritual immensity, but can put the artist or beholder into immediate relation with that ultimate reality, call it beauty or truth, or what you will—that presence whose dwelling is not only in the light of setting suns, but anything whatsoever upon which light falls ; whatever can be seen. Nor is that light, which really is on sea and land, the result of the artist's vision or the poet's dream. The artist's vision, we imitators hold, is open to all, to all who care to develop their own power of vision. Vision, like all intensified activities of the mind, adds love to a sensibility. Vision is sight through love. The artist, says Rodin, has his eye grafted on his heart, so that he not only sees things, but also feels their value and meaning. Those who love the world through their sight, then, whether they paint or not, share the artist's vision. That love, if not naturally strong, can, like all love, be stimulated through the understanding of its object, that is, through the understanding of the appearance of Nature. That effort to understand appearances is the special work of the artist, and the challenge of all sane art is "go back and look at your world, contemplate it and love it as I do!" How many of you, in some leisure moment, free from intellectual or practical preoccupation, faced with natural scenery of trees or fields, have exclaimed "How Corotesque"! That is a recognition that the artist has succeeded in revealing or portraying some truth about Nature. In such an experience as that is realized what is meant by fidelity to Nature in art.

---

[1] I have been guilty of coining the phrase " metaphoric art " to distinguish it from symbolic art. Symbolism uses natural forms as the bearers of ideal meaning, of values, and as far as its representation goes can keep within the bounds of realism. By metaphoric art I mean the actual distortion of one form to give it the character of another form.

[2] Michael Angelo is said to have had such a love of the human form at its best that he would not tolerate any additions or alterations to it. Thus God and His angels float about without wings with a sublime disregard for the laws of gravitation.

Now, as I have said, the artist only differs from the non-artist in the intensity of his feeling for outward appearances, and in the necessity of his nature to study and understand them as the vehicles of spiritual or vital meaning. To the artist, beauty always lies in the correspondence of the outward form of anything to what he feels to be its true meaning. From that point of view everything is the possible bearer of beauty, if you but try to understand what it is trying to express. Only that is beautiful for art which bears its meaning on its face, *i.e.*, that expresses its meaning in its outward form. This adequacy of the felt meaning of a thing to its appearance is the only concern of the artist, and beyond that he makes no other judgments. This may be what Keats meant when he said Beauty is Truth. It is this idea of adequacy which leads to the notion that the artist finds beauty even in ugliness. The point is that outward ugliness of form, if it expresses its inner meaning appropriately, is beautiful as a revelation of truth, and therefore as much an object of æsthetic pleasure as anything else. Only that is ugly that lies, that pretends to be what it is not, that hides in another form its own poverty of meaning.

"When an artist", says Rodin, "intending to improve upon Nature, adds green to the springtime, rose to sunset, carmine to young lips, he creates ugliness, because he lies.

"When he softens the grimace of pain, the shapelessness of age, the hideousness of perversion, when he arranges nature—veiling, disguising, tempering it to please the ignorant public—then he is creating ugliness because he fears the truth. To any artist worthy of the name, all nature is beautiful, because his eyes, fearlessly accepting all exterior truth, read there, as in an open book, all the inner truth." And again, speaking of his picture "The Man with the Hoe", he says, "Let François Millet represent a peasant for a moment as he leans on the handle of his hoe, a wretched man worn by fatigue, baked in the sun, as stupid as a beast of burden dulled by blows—he has only to reveal in the expression of this poor devil a sublime resignation to the suffering ordained by Destiny to make this creature of a nightmare become for us the great symbol of all humanity."

Now let us take the æsthetic experience for granted. The artist has received an impression which carries with it the appreciation of an external object and a resulting heightened state of being in which he is said to experience beauty. The aim of all enjoyment is to perpetuate itself, and the artist wishes to remain in that state of enjoyment and to continue to contemplate the object. Here we see the difference between the poet, the thinker, and the artist. Thought moves away from the object of sense: contemplate an object without doing anything, and unless you are a mystic or yogi, you find that the mind's tendency is always to move away from the object, from the sense world to a world of ideas or meanings. But the artist sets to work to fix that object or bit of nature, to fix it as an object of sense, and in doing so, to fix in himself, as long as possible, the feeling or æsthetic relation to it, arresting or suspending the mind's flow to ideal or conceptual meaning. This he can do only by paying attention to its sensible qualities, analysing the object in terms of the sense that has been stimulated, *i.e.*, the sense of vision, analysing the object in terms of visual appearances or qualities. We shall see later what these qualities are.

Now, in accordance with the idea that the artist sees through his heart, that is, feels for what he sees, he has only to trust his eyes, to register what they register in order to communicate his feeling. The sincere artist works with himself as he does with his brushes, and need never consider either. He cannot escape himself, what he fails to express in Nature, he has failed to appreciate; the limitations of his work are the limitations of his own nature, his own narrowness of sympathy or failure to understand what has affected him. Hence to the discerning eye he paints a self-portrait even if he paint a cabbage! But a true love of Nature will drive the artist forward along an endless road of development till life itself changes the direction. The collected paintings of Corot would be a monument of the progress of a genius over an entire life, progress in an ever-ascending line of perfection, for he was always humbly conscious of his own need for it. Highly developed observation goes hand in hand with a highly developed technique, and there is no great artist without them both, just as there is no great thinker without a good vocabulary, a highly developed use of language. We must proceed now to examine the artist's vocabulary, and this brings me to my second division.

(II) HIS SUBJECT.

So far we have simply said that the subject matter of painting or art generally is the outward appearance of Nature, its visual qualities, through which meaning is felt or intuited. Let us examine these visual qualities of things, the language of the artist, and I hope you will see that the artist is not saying something that could be said in any other way. When Joseph Conrad came to write about the sea, he chose English, he said, because it had the most highly developed vocabulary for the expression of ideas and feelings about sea life. Now when we remember that in so far as the artist's appeal is to ideal meaning, it is through sensible forms, through stimulation of the sense of vision, we shall realize that the visible qualities of things are the artist's vocabulary and that paint is the inevitable medium for expressing these qualities. The following examination of these visual qualities can, we think, quite fairly claim to be free from the bias of a particular point of view. Indeed, *a careful attention to it will give the key to the understanding of all forms and styles of art, which are, in last analysis, the result of certain preferences or accentuations of one or other of the real visual qualities in order to express more of the feeling or value recognized in that particular quality or character of natural appearances.*

Any thing or bit of Nature that an artist isolates from its neighbourhood and chooses to put a frame round is said to be the subject of his picture or the object he paints. At the outset, we must realize emphatically that the artist is not simply concerned with the particular objects in his group, but with the group as a whole ; whatever is included at all, even the merest shadow, is part of that whole, and essential to it. His picture is the sum of the relations of those parts which may be any number of objects, reflections and shadows.

Any bit of Nature, so far as it is seen, has four main qualities, *i.e.*, visible or visual qualities, for we are not concerned with any other physical qualities as such. These are tone, colour proportion, and character. For the sake of clarity, we may make the following schema :

Subject of a painting or the object of æsthetic appreciation.	1. Meaning, *i.e.*, objects included—landscape, trees, people, *et cetera.* 2. Tone, *i.e.*, light and shade, *chiaroscuro.* 3. Colour. 4. Proportion. 5. Character, *i.e.*, texture, "edge", *et cetera.*

Now, you may be inclined to think, with the popular misconception, that (2) to (5) are simply means of setting down the meaning in (1), but I wish to state emphatically that (2) to (5)—Tone, Colour, Proportion and Character—are for the artist really on the same level as meaning. It is actually these which affect him æsthetically. As words to the poet, or chords to the musician, these elements of visual language are beautiful in themselves. Not only are they elements of a language, but they constitute the universal qualities of the "seen" world; they are, as it were, "sensible universals" which he enjoys in particular appearances. The meaning "trees", "flowers", or whatever is the formal subject cannot have æsthetic meaning for the artist, save as it embodies these. Velasquez could go on painting any dull courtier he was required to paint; Rembrandt could live obscurely and go on with endless biblical subjects or self-portraits, simply because all these, apart from their formal meaning, were the revealers of these visible universals of light and shade and colour, of space and character.

Artists tend to range themselves into different groups and "schools" according to their preference or sensitiveness to one or other of these qualities which they will tend to stress to the neglect of the others, but the great masters are those who have a balanced regard for them all as equally important aspects of Nature, and to overdo any one where Nature has not, to fail to pay respect to any one is to the true artist a blasphemy—to miss one is to miss all.

(1) *Meaning.*—Since it is the visible qualities of things rather than their meaning as facts that concerns the artist, it follows that his choice of what one might call "factual subject" depends on the circumstances of his life, the sort of life he is forced or chooses to live, and the patronage he receives. These in turn will depend upon his own character and temperament as a human being. The peace-loving man of contemplative nature and simple tastes, who will find a happy life in the country generally turns to landscape; the more social artist to portraiture, and so on. But these are more or less accidental; the artist anywhere will find subject matter because it is the qualities of things that draws him first, not their idea or meaning as facts.

(2) *Tone.*—Tone, of course, means relative strength of light and shade. You have all been used to the word tone in connection with music, and you sometimes hear musical critics speak of light and shade in music. To speak of lights and shades as tone values is more expressive of what is implied in the relations of lights and shades. They are both tones, a light is a light in relation to a shade, and *vice versa.* They are both degrees of tone. The highest tone is white and the lowest black, and between these range the whole infinite number of shades or tones.

Tone is, I think you will agree, the most important quality of the visible world, of the world as seen. Newspaper pictures or any of these monochrome reproductions will show you that it is through varying degrees of tone value that the world appears at all. Tone is the revealer of form in three dimensions; it reveals the way objects break and reflect or absorb the rays of light by their shape and density, and it is through these breaks or variations that we read the world as a congregation of objects in space. We know this object is a sphere and this a disc, because the surface tone of the sphere changes in a definite way, whereas the disc has a uniform tone. Again, if we could not see the horizon we should still know a desert was a receding plane by the fading tone value. We should know, even if we could not see its boundaries, that a wall was a vertical plane, because its tonality did not fade. If we could not see their roots and branches, we should still know that the trunk of this tree was in front of that one by their relative tone values. Hence tone is essential to our knowledge of perspective, to our awareness of spatial relations through sight.[1]

Tone is not only the most important fact of vision, it also makes the greatest appeal to our feeling. You have only to notice the use of light and shade as a metaphor for almost everything we feel; our association of joy and life with the top end of the light scale, our sense of mystery, doubt and despair with the dark end. The great psalmist sings of the Valley of the Shadow of Death. Tennyson says "They are but broken lights of Thee"—yes, the whole world of things as it appears to the eye is made up of "broken lights". Contrasts of light and shade express the whole drama of Nature as fraught with feeling. Tone is the language of deep emotion. For this reason, in those seasons and times of day when the shadows are deep and lights shine forth, we are most deeply stirred. Who has not walked through the "bush" some late afternoon or early morning when the shadows are long and the lights gleam, and not been stirred to a sense of beauty and wonder? Or who has not in some quiet room, where the simple light, as in this portrait by Rembrandt, has broken into beautiful and gentle degrees of tone where it fell on some still face revealing all the infinite variety of its form, who has not seen such a vision and not been held and captivated?

(3) *Colour.*—Colour is an added grace to tone. Of course pure tone is an abstraction apart from some colour in which it occurs; but as far as actual forms are concerned, they could be perceived if there were no differences of colour at all, but the whole world were a monochrome-like sculpture. That is why I have said colour is an added grace. It has a direct sensuous appeal; without any reference to form or meaning it can be the subject of great æsthetic delight. A certain colour harmony can affect us æsthetically without any appeal to the mind at all. But we do associate colour with definite feelings and ideas; thus green and blue are cool, and we associate them with rest

---

[1] Touch, of course, being eliminated as we are dealing only with the world as seen.

and peace ; yellow and red are warm and stimulating, and we associate them with activity. The kind of colour an artist is attracted by is an indication of his love of those qualities, and the way he relates colours gives us what we call his particular sense of colour. There are many so-called artists to whom colour is almost the whole appeal, and the world of things only exists as a bearer of colour. These artists frequently fall in love with the paints in their boxes, seeing all blues as French ultramarine, all yellows as chrome, forgetting that pigments were made to portray the variety of shades and mixtures of colour in Nature to whose delicacy and variety they become quite insensitive. You might object that great colourists create colour harmonies that are not found in Nature. Yes, this is the virtue of the dyer, the maker of fabrics, the designer and decorator, but even these have found that Nature herself can give them in a single plant or insect colour harmonies equal to any they have created and can supply them with thousands they could not. We say an artist is a good colourist when his colour seems to do justice to Nature's. Where it is false, misplaced, monotonous or exaggerated without cause we consider it bad.

(4) *Proportion.*—Proportion, in this context, means spatial proportion—the relative size and shape of objects. But as we have said, the visual qualities of things being as important to the artist as the meaning of the things, and since any bit of Nature is seen to be composed of areas of light and shade with different colour values it follows that to the painter the size and shape of these areas or patches of light and shade will be more important than the shape of the objects as such, whose outline or configuration will be revealed only through them. Here, then, we can distinguish between mass proportion and linear proportion.

(i) Mass proportion refers to the shape and relative size of light and dark patches or areas which make up the tonal scheme of any bit of Nature.

(ii) Linear proportion refers to the shape and outline or configuration of any particular object. It is directly connected with the movement of the eye in following the edges of anything. In art, linear proportion becomes the subject of drawing, which seems to express not only the delight the eye takes in moving from point to point but an almost muscular delight in the potential movement of the body itself. An artist with this particular sensitiveness will choose the paint, pen or pencil, as his happiest medium ; or if he is of the creative type, will take a delight in design. Nowhere so much as in Japanese art has the beauty of the simple shapes of flowers, plants and insects been so faithfully portrayed, and it is on the basis of these minute and careful observations that the subtlety of its design has been built.

Here we might add a note on composition or arrangement. It is said that composition or arrangement is the artist's contribution to art. Nature does not arrange things, but leaves them lying about haphazard, as it were, and it remains for the artist to transpose their position according to some ideal conventions supposed to govern the unity of a bit of Nature he has cut off from the rest, if it is to be considered as a "picture". This is to some extent true. But the mental outlook of the imitative artist or realist, being rather one of appreciation of his world than a desire to mould it according to his ideas, he will be conscious of searching and finding compositions by changing his own position relative to them. But the creative artist is free to hurl trees and mountains about to gratify his desire for conventional forms of design. One works to an idea and the other from an idea. But good composition, whether found or composed, seems to us to lie in selecting from Nature a happy arrangement of patches of light and shade, or in drawing a graceful and expressive arrangement of lines. The former may be compared to orchestral music, the latter to melody and rhythm.

(5) *Character or Quality.*—In considering character or quality we may distinguish between the character or quality of "edge" and the character of surface or texture. On examination both of them will prove to be further qualifications of our areas or patches of tones. By character of "edge" is meant the kind of edge these patches have in relation to each other. It is sharpness or softness of the edges of tones or patches of colour that tells us whether their forms merge or are cut off from one another; it is sharpness of edge that tells us the distance of things apart. Texture or the character of surface is revealed by the way a surface or patch is broken by small tonal differences of the same colour scattered about in the same plane. It is in last analysis an appeal through the eye to our sense of touch, of hardness and smoothness, of plainness or roughness. To portray or suggest these qualities requires a great control of the medium, and perhaps that is why they are so generally neglected. Yet character of this sort contributes so much to the variety and subtlety of Nature, and if the artist perceives and values that subtlety, he will persevere till he is able to do it justice.

In studying this portrait of an old man by Rembrandt you can have no doubt about the sort of material in the coat, this is unquestionably velvet and that linen, the buttons are metal, and the soft white hair is unmistakable. But, take this portrait of a young girl by one of our own modern painters; charming as the subject is, there is actually nothing in the character of its tone values to show you that the whole thing is composed of anything but oil paint. You read this as hair, this as flesh, and the dress as some sort of material because you know they must be, that is to say, you "read" them, you do not perceive them in the picture.

It will be seen from this analysis that the painter's world, that is, the world-as-seen, is made up of patches of light and shade having certain colour values, certain proportions, certain qualities of surface and edge. Like Chinese character-writing, these are beautiful to behold, even if you do not know or care to know Chinese. So the "characters" of the seen world are beautiful, even if you do not penetrate their depth as symbols of spiritual meaning.

(III) HIS MATERIALS.

Now we come to a consideration of the artist's materials or medium. This must be necessarily brief in the absence of materials to demonstrate with. I have suggested already that different mediums, such as the paint, *et cetera*, are specially suited to the expression of certain aspects or qualities of the world of appearance, and that the choice of these forms of art depends on other sensibilities than pure vision. Sculpture is associated with the feeling of touch and drawing with potential muscular movement. All media have their special limitations within which the artist must abide. The very shape and nature of his tools can play an important part in the development of his technical skill; but the greater artist will not be dictated to by his tools, but will shape and fashion them to perform the task as he perceives it to be. Those of us who threw away our flat brushes in preference for round ones on the advice of our more experienced craftsman and teacher, can tell you what freedom we gained to express what we already perceived. When we behold the perfect plastic beauty of a marble head by the great master Rodin, we smile at the craftsman who tells us that sculpture must be angular and full of flat planes because tools are flat and angular and stone has to be chipped. To the real artist these are not the limitations. Certainly, the sculptor is faced with the problem of understanding just what he can do with clay, or stone, or marble. He has to forgo colour and the capturing of one particular beauty of light and shade; and owing to the hardness of these materials he will have great difficulty in doing justice to texture. But if he is a lover of pure physical form, he will find his compensations in the freedom he gains in being able to do justice to his form from all aspects, to recreate it again in space, to handle it.

I have suggested that the paint is the natural medium for those who appreciate pure linear design, outline and shape. But in choosing the paint the artist must give up colour, or at best make a compromise with it in water colours; he will be limited in his ability to suggest space and atmosphere owing to the difficulty of handling areas of light and shade with a paint. But he will find his compensations in his freedom to abstract from Nature her simple rhythms, to reveal her simple linear designs or to create others on the pattern of these.

Oil paint is, however, the most versatile of all media; it can most naturally be made to do justice to all the visual qualities of appearance creating even a perfect illusion of space. Thus, of all the arts it can best hold a mirror to Nature, giving back her complete visual beauty. But most artists, even though they all start with a love of Nature in their youth seem to develop a preference either for some one aspect of her or for some way they can handle their tools. We have seen good artists develop into sleight-of-hand tricksters, prostituting Nature for the display of their own dexterity. Out of these two preferences arise all the styles and mannerisms of art. Manner is only the generalization of a certain characteristic of appearances, or of a certain limited technique which the artist has failed to develop. But it is not merely a technical failure, for when the mind has grasped anything it dictates to the hand. It is a limitation of the artist's own æsthetic nature, an expression of his ability to appreciate only one characteristic of Nature, which seems to be sufficient to express his feeling about the whole of it. But the true and great master is one whose sympathy and grasp of Nature is so wide and deep that he is able to suggest everything that could be a visual appearance. His feeling of Nature is for all of her, and he will push on and develop his technique accordingly, always with the feeling that Nature who is greater than himself is his only guide. Thus the great master Corot, after a long life spent in the search of the truth that is beauty, said as he was dying: "The clouds, let me see the clouds. Ah, I have never got them right yet."

PSYCHOLOGY AND RADIO.

By Professor A. Nechaev,
Moscow.

II.

(Continued from March issue.)

Radio as an Instrument of Psycho-technics.

The application of psychology to technics is usually connected with two large problems—psychical fatigue among workmen and vocational selection.

What importance can radio have for these problems?

During the years 1929–1930 4,342 observations by radio immediately connected with the problem of psychical fatigue were registered by me. I have 4,342 documents showing the state of sensori-motor harmony among the radio listeners-in, who were examined by our psychological experiments by radio.

I have already mentioned above what is meant by " sensori-motor harmony " and what significance the determination of this condition has for ascertaining the degree of psychical fatigue. We know that when a man is in a cheery and efficient condition there is between his sensory processes (the processes of memory and attention in particular) and the motor processes (readiness for moving appropriate to the quality of sensory attention) a fixed correspondence, which according to my formula is expressed by the coefficients from 80 to 120. The reduction of this coefficient shows such a distortion of sensori-motor harmony, as is generally followed by a state of psychical fatigue when a person becomes excessively distracted and forgetful, disclosing at the same time an immoderate impetuosity in movements, assuming an aspect of senseless fuss and irregular actions.

Amongst our 4,342 observations there are 1,236 registered cases of such a distortion of sensori-motor harmony. These cases of a typical display of psychical fatigue are not equally often observed in different groups of the subjects examined, nor in different seasons of the year.

2,910 observations refer to men and 1,433 to women, 2,185 to those living in Moscow, and 2,157 to those living in other places. In each of these groups the percentage of cases with indisputable signs of a distortion of the sensori-motor harmony happened to be different, as can be seen in Table XXI.

TABLE XXI.

The Distortion of Sensori-Motor Harmony in Persons of Different Sex and in Different Location.

Sex.	Inhabitants of Moscow.		Inhabitants of Other Places.	
	Total Number of Observations.	Number Showing Distortion of Sensori-Motor Harmony.	Total Number of Observations.	Number Showing Distortion of Sensori-Motor Harmony.
Male	1,392	413 (29·5%)	1,518	459 (30·0%)
Female	793	212 (26·5%)	639	152 (23·5%)

Thus we see that men, on the average, oftener show signs of psychical fatigue than do women. The percentage of men showing a marked distortion of sensori-motor harmony is nearly equal in persons living in Moscow and in those living beyond it. So far as women are concerned, those living in Moscow oftener show signs of fatigue than do women who live in other places.

The material gathered by us is interesting in that it has been secured from one and the same person, at the same time of the day, immediately after getting up, five minutes moving about for arranging the bed, and two minutes walking.

There were representatives of different professions amongst the subjects examined: students, teachers, engineers, technicians, doctors, scientific workers, artists, head book-keepers, book-keepers, workmen and employees of different plants, military men and house mistresses. In each of these groups signs of a marked psychical fatigue were not equally often seen. The comparative fatigue of each of these professional groups, as characterized by a larger or smaller percentage of cases of a decrease of sensori-motor harmony, is shown in Table XXII.

TABLE XXII.

The Distortion of Sensori-Motor Harmony in Persons Belonging to Different Professional Groups.

Professions.	Number of Observations.	Number of Distortions of Sensori-Motor Harmony.
1. Workmen and employees ..	1,511	425 (28%)
2. Pupils of labour schools	808	190 (23%)
3. House-mistresses	411	98 (24%)
4. Engineers, technicians, telegraphists, typists	410	150 (36·5%)
5. Head book-keepers and book-keepers	318	118 (31%)
6. Students of the university ..	325	132 (41%)
7. Teachers	222	66 (30%)
8. Medical personnel	159	45 (28·5%)
9. Scientific workers, artists and journalists	94	36 (38%)
10. Military men	48	10 (21%)

Our numerous preceding researches have shown that if in a group there are from 16% to 31% of cases showing decrease of sensori-motor harmony it means that this group, on the whole, can be examined as being in a state of normal fatigue. Such a state is generally noticed after a busy day spent in some work, according to one's strength, the traces of which can be easily removed by the usual forms of rest. A group with a number of cases showing decrease of sensori-motor harmony above 31% is considered to be in a state of marked fatigue. From this point of view the groups examined by radio—students of the university, scientific workers (together with artists and journalists) and likewise engineers and technicians (together with telegraphists, typistes and stenographers) must be considered as overfatigued persons. The other groups disclose different degrees of normal psychical fatigue. The most favourable group, as far as psychical fatigue is concerned, is the military group. After it follow in sequence, pupils of labour schools, house mistresses, workmen and employees, medical personnel, teachers, head book-keepers and book-keepers.

Examining the variations in the percentage of the number of cases showing distortion of the sensori-motor harmony during a whole year, we can ascertain that the most noticeable display of psychical fatigue is observed from May to July, and the least from November to February (Table XXIII, Diagram X).

So we see that the strength of psychical fatigue depends not only upon the kind of professional occupation of a person, but likewise upon the seasons. Above I gave some data from our researches by radio, indicating what influence insufficient sleep has on the distortion of the sensori-motor harmony. In a group of persons who sleep more than eight and a half hours 21% of cases showing a decrease of sensori-motor harmony was perceived; in persons who sleep from six and a half to eight and a half hours, 26%; and in those who sleep less than six and a half hours, 29·5%. From other factors of general significance we contrived to some extent to trace the influence of fatigue on nourishment.

Amongst the radio listeners-in who underwent our experiments was a group of persons who found that their nourishment was insufficient, whereas others, according to their own statement, eat satisfactorily or well. 589 researches belong to this group, of which 178 show a marked decrease of sensori-motor harmony, that is to say, 30·25% of the total number.

Comparing the results obtained from the different ways of treating the data secured from our researches by radio, we find that all the persons who were examined give, on the average, 27·5% of cases showing a significant decrease of sensori-motor harmony. With separate professional groups the number of cases showing a distortion of psychical equilibrium varies,

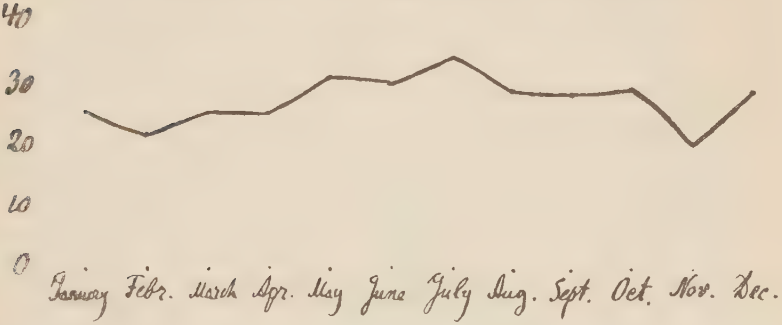
TABLE XXIII.

Distortion of Sensori-Motor Harmony in the Different Months of the Year.

Months and Years.	Number of Observations.	Number of Cases Showing Distortion of Sensori-Motor Harmony.
June, 1929	480	149 (31%)
July, 1929	427	152 (35%)
August, 1929	353	101 (29%)
September, 1929	275	77 (28%)
October, 1929	217	65 (30%)
November, 1929	281	60 (21·5%)
December, 1929	493	141 (29%)
January, 1930	286	75 (26%)
February, 1930	356	86 (23·5%)
March, 1930	284	126 (26%)
April, 1930	354	91 (26%)
May, 1930	341	112 (33%)

DIAGRAM X. (TABLE XXIII.)

Percentage Number of Cases showing Distortion of Sensori-Motor Harmony.



increasing to 41% and diminishing to 21%. Under the influence of insufficient sleep the percentage of cases showing distortion of sensori-motor harmony rises, on the average, to 29·5%, and under the influence of under-nourishment to 30·05%.

Hence we see that the psychical fatigue is defined first of all by the *combination of factors, which are connected with a certain professional activity.*

To be sure, the question of psychical fatigue and of the comparative importance of the stipulated factors is exceedingly complicated, and the facts educed by us are insufficient for a complete elucidation of this problem. I only wanted to establish that amongst other means of studying the processes of general fatigue, radio can occupy a prominent position.

Now we shall pass to the question of applying radio to the study of the problems of vocational selection.

One of the most important problems pursued by psychotechnics for the selection of persons suitable for a certain vocation is the determination of the general level of their intellectual development, not in the sense of possessing this or that knowledge, but in the sense of their capacity for more or less complicated intellectual processes. A typical example of such processes is *comparison* as a factor in reasoning. That is why, when arranging a psychological research upon the aims of vocational selection, a series of methods for determining a person's capacity for comparing and reasoning is usually employed.

Can researches of that kind be made by radio?

The principal technical difficulty in arranging psychological experiments by radio arises from two demands: (1) in these experiments only auditory signals can be used, and (2) the length of the experiments must be minimal.

With these demands in mind I designed a new method of research into the processes of reasoning—a method which consists of comparing two objects from ten different points of view.

The outward form of this method was as follows: One said to the persons who were being examined: "Directly I will say three words, and you will have to find a fourth word, according to the sense. For example, I will say three words: the dog barks, the cow . . . What does the cow do? It lows. Another example: a foot—a boot, a hand—a glove. Do you understand? Now take a pencil and put down No. 1 on a sheet of paper. Opposite this number you will write only the fourth word, which you have to find. It is not necessary to write down the words which I shall pronounce. Directly we shall compare a sparrow with an ear of corn growing in the field. Now, listen: No. 1. The sparrow is grey, the ear . . . (a pause of seven seconds). No. 2. The sparrow is a bird, the ear . . . No. 3. The sparrow—bevy, an ear . . . No. 4. A sparrow—a grain, an ear . . . No. 5. A sparrow—a nest, an ear . . . No. 6. A sparrow—feathers, an ear . . . No. 7. A sparrow—a cat, an ear . . . No. 8. A sparrow—a gun, an ear . . . No. 9. A sparrow—a mouth, an ear . . . No. 10. A sparrow—an egg, an ear . . .

The setting of such an experiment takes less than five minutes. Along with this a short interrogatory of the persons is made (age, sex, occupation, *et cetera*), which also needs about five minutes.

Before casting this experiment by radio we verified it twice on school pupils; on the first occasion (in the spring of 1929) the experiments were made with a small group of 46 pupils, parallel with a research by methods which had already been used many times, and on the second occasion (in the spring of 1930) with a larger group (315 persons).

These preliminary experiments convinced us that my short method of examining the processes of reasoning gives a result which corresponds with other results obtained with the help of other already well-tried and more complicated methods and also with the data relating to the general mental development of the pupils. I shall cite as an example the following general data, obtained from our school experiments, which were made in the spring of 1930 with 316 pupils.

It is generally known that the process of reasoning develops with age (in the period of the development of our organism).

That was also plainly seen in our experiments.

Out of the ten given problems (the comparison of a sparrow with a corn-ear) on the average the task was done by

Pupils of 8 years old........................15%
" " 9 " " 25%
" " 10 " " 37%
" " 11 " " 43%
" " 12 " " 54%
" " 13 " " 60%
" " 14 " " 66%
" " 15 " " 74%
" " 16 " " 91%

The growth of the process of reasoning in accordance with the age of the pupils examined, in so far as it is revealed by the results of our experiments, is graphically shown in Diagram XI.

These results show that with the help of my methods a strict regularity in the course of the mental development of the pupils is readily seen and it will be still more convincing if we subject them to a more detailed review.

Table XXIV shows how the percentage of the pupils who have correctly solved a larger or smaller number of the given problems changes with age. In this table we see, for example, that of the eight-years-old pupils no one could solve more than 50% of the given problems, and the 50% were solved only by 5% of the pupils of that age, 40% by the same 5% of the pupils, 30% by the same 5%, together with another 15%, altogether 20%, *et cetera.*

The results of Table XXIV are graphically represented by Diagram XI.

Having compared with these average results the data obtained from the examination of separate persons, we have divided all the persons examined into three groups. In the first group are the pupils who gave results agreeing with those which were obtained on the average from the study of persons of their age, in the second those in whom the development of reasoning according to our experiments was *below* the average level, and in the third group those in whom it was *above* the level. In each of these groups there happened to be an unequal

TABLE XXIV.

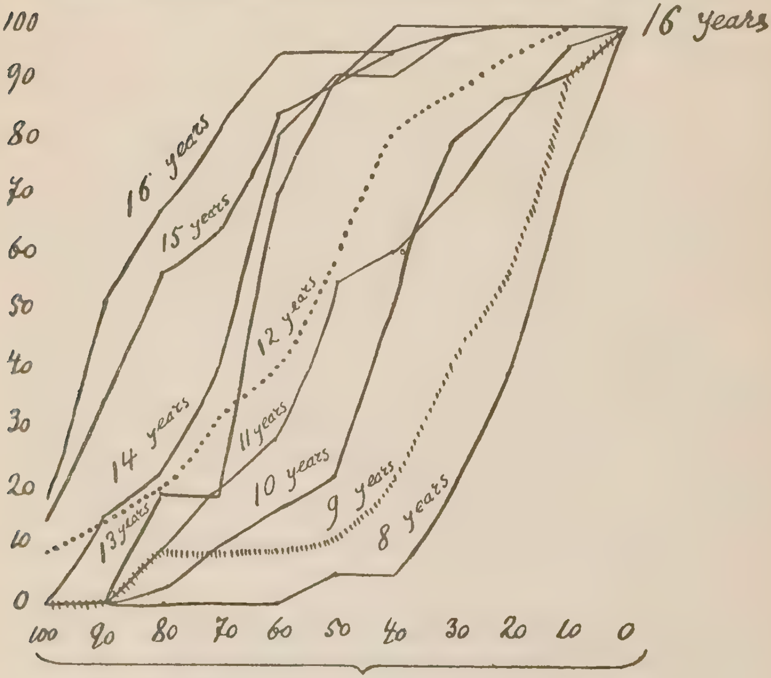
The Changes, withthe Age of the Pupils, of the Percentage of the Number of Correctly Solved Problems.

(Development of the Processes of Reasoning.)

Age.	Percentage of the Number of Pupils who Solved, of the Given Problems, not less than										
	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0
8 years old	0	0	0	0	0	5	5	20	40	75	100
9 ,, ,, ...	0	0	9	8	9	12	21	43	57	92	100
10 ,, ,, ...	0	0	3	10	16	23	53	80	87	93	100
11 ,, ,, ...	0	0	9	19	28	56	62	72	85	97	100
12 ,, ,, ...	9	14	18	33	41	59	82	87	95	100	100
13 ,, ,, ...	0	0	18	18	72	91	100	100	100	100	100
14 ,, ,, ...	0	15	23	42	81	96	96	100	100	100	100
15 ,, ,, ...	14	35	57	65	85	90	95	100	100	100	100
16 ,, ,, ...	17	53	68	83	95	96	96	98	100	100	100

DIAGRAM XI. (TABLE XXIV.)

Percentage of the Number of Pupils who Solved out of the Given Problems.



Percentage Number of the Correctly Solved Problems.

percentage of pupils studying in a lower school group, as compared with the majority of their coevals. The largest percentage of these backward pupils (47%) was shown by the group with a development of reasoning below the average level, and the least

(10%) by the group with reasoning capacity above that level. The middle group (with a normal development) also in this case occupied the middle place (19%).

The method, verified in this way, was used by radio (May 22, 1930).

These experiments by radio were done by 322 persons (200 men and 122 women), who sent us the results of the experiments, together with the necessary information about their age, sex, education and vocation.

It was discovered, on reviewing this material, that our method of experiment upon reasoning gives a very marked difference in the results from those which were obtained from the research upon persons of different vocations.

We know that the capacity for a successful accomplishment of different kinds of work is connected with a definite degree of mental development.

If we exclude such sorts of work as can be carried out in spite of a considerable degree of mental deficiency (as for example, the carrying of weights under the immediate guidance of another person, or the performing of simple automatic actions at some sort of factory work), it is possible to divide all the kinds of work into three groups: (1) Work requiring knowledge of some instruments of production and skill in varying the modes of one's labour within the limits of this *concrete knowledge.* (2) Work in doing which one must be guided by certain *general rules* and be able to apply general circumstances to separate concrete cases. (3) Work in doing which it is indispensable not only to be guided by the given common circumstances, but also to *find out* certain general leading conditions issuing from separate cases.

It is evident that the first kind of work characterizes a worker of *low* qualification (the type of the ordinary workman), the second kind a worker of *middle* qualification (*e.g.*, a factory foreman, book-keeper, head book-keeper, technician, telegraphist) and the third workers of *superior* qualification (a scientific worker, an engineer, a teacher, a doctor).

The first kind of labour is characterized by the effectiveness of mental processes connected with *simple concrete reasoning.* This form of reasoning is usually natural for children, *i.e.*, for the period of the development of the organism before the approach of the first signs of puberty (12 to 13 years old).

The second kind of labour is characterized by the ability to operate with the *general objects.* This ability usually begins to develop towards the end of the so-called transitional age (14 to 15 years).

The third kind of labour is characterized by such an activity of reasoning as is usually displayed only after 15 years of age.

Of the number of persons examined by us by radio on May 22, 1930, there were 130 representatives of vocations, having a fixed relation to the three abovementioned groups of work. Into the first group (workers of low qualified labour) 39 persons had to be put, into the second (workers of middle qualification) 50 persons, and into the third 41 persons.

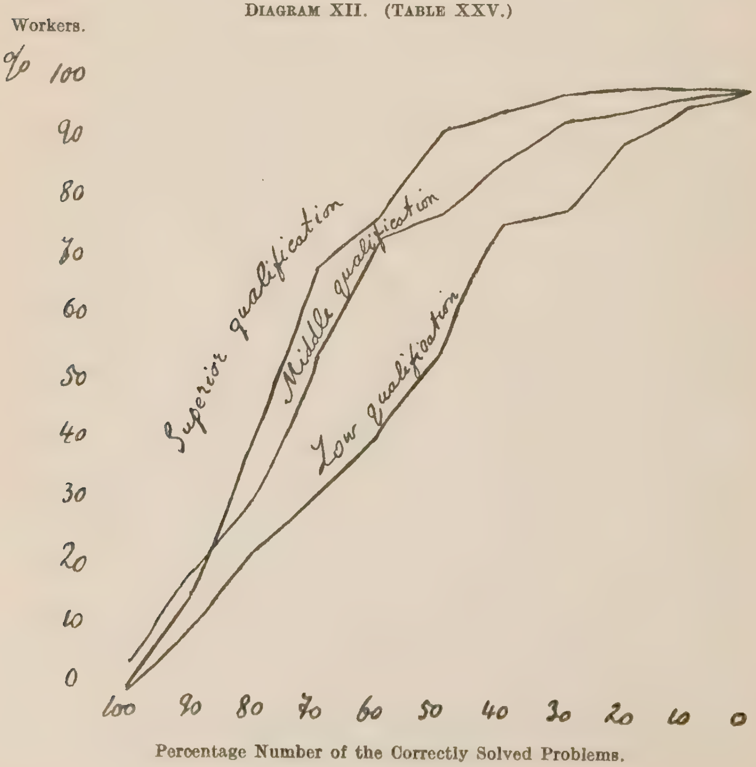
The results of our experiments into the processes of reasoning are as appear in the following table (Table XXV).

TABLE XXV.

Percentage of the Number of Correctly Solved Problems by Workers of Different Qualifications.

Qualification.	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0
Low	0	10	23	33	43	56	77	79	92	97	100
Middle	4	19	32	55	74	78	87	94	96	98	100
Superior	0	16	40	69	77	93	96	98	100	100	100

DIAGRAM XII. (TABLE XXV.)



The data of Table XXV is graphically shown in Diagram XII.

On the average the workers of low qualification solved 51% of the problems, the workers of middle qualification 64%, and the workers of superior qualification 68%.

By comparing all the data with the results of the researches upon pupils of different age, as far as the development of reasoning is concerned, we can rank the workers of low qualification with pupils of about 12 years of age, workers of middle qualification with pupils of about 14 years of age, and the workers of superior qualification with pupils of about 15 years of age.

Thus, in the research by radio into the processes of reasoning among persons of different qualification, not only was the presence of a marked difference evident between them, but what is especially interesting, this difference corresponded with the general state of intellect which is usually observed at a successful performance of one or other kind of work.

Table XXV reveals another interesting fact. The difference between the groups of workers of different qualification is characterized not so much by the presence amongst them of a larger or smaller number of persons who have solved a larger number of the problems presented, as by the percentage of persons who solved the *least and middle* amount of the problems. For example, there were 4% of the persons of middle qualification who gave the solution of all the ten problems presented, while amongst persons of superior qualification no one did so much. Nevertheless, amongst persons of superior qualification there were none who solved less than three problems, while amongst workers of middle qualification there were 4% who had not even solved three problems, and amongst workers of low qualification 8%. If we consider what number of the problems presented was solved by not less than 50% of all the subjects of one or the other group, it will be evident that half of all the workers of superior qualification solved no less than 75% of the problems, half of the workers of middle qualification—not less than 70%, and half of the workers of low qualification—not less than 55%.

The distribution of the subjects from the point of view of education they had received showed less difference than the one which was determined by the classification of their professional labour.

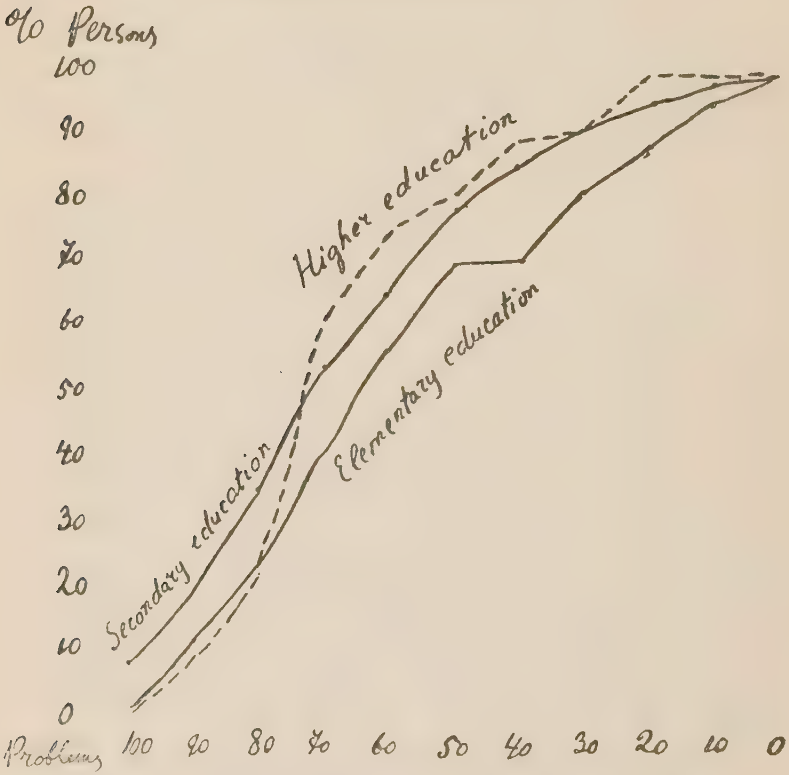
The results of Table XXVI are graphically represented by Diagram XIII.

TABLE XXVI.

Percentage of the Quantity of Solved Problems in Persons of Different Education.

Education.	Percentage of Number of Persons who Solved										
	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0
Elementary	3	13	24	42	57	71	72	83	88	96	100
Secondary	8	20	36	55	66	79	86	93	96	98	100
Higher..	0	10	23	63	76	83	90	93	100	100	100

DIAGRAM XIII. (TABLE XXVI.)



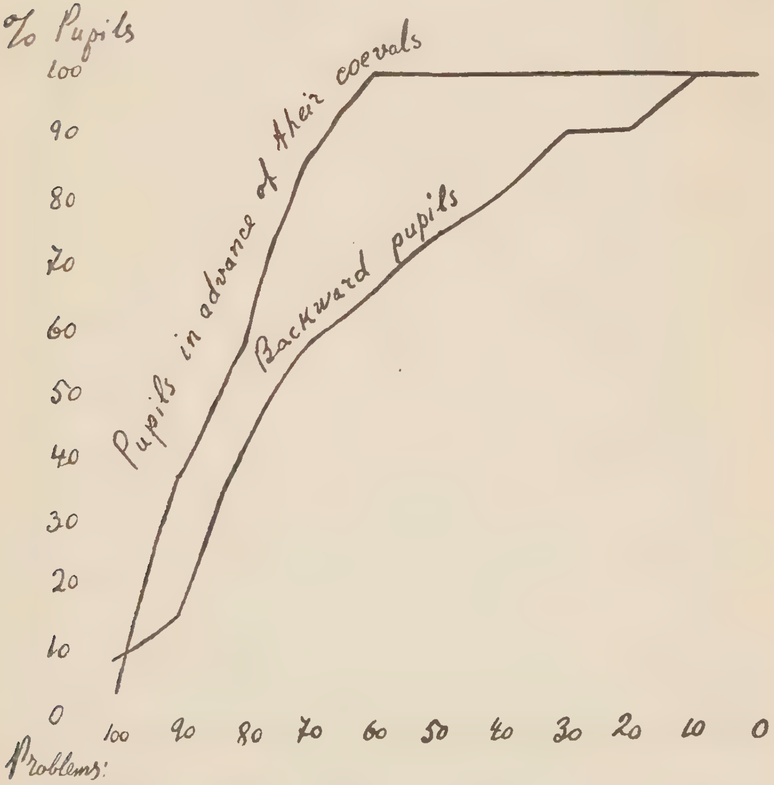
Amongst the pupils examined by us by radio were pupils of the same age but of different stages of education. Having assembled into one group the persons who were ahead of their coevals and into another one those behind in education in comparison with pupils of the same age, we obtained for these groups the following results (Table XXVII, Diagram XIV).

TABLE XXVII.

Percentage of Solved Problems for Persons of the Same Age, but of Different Success in their Studies.

Success in Studying.	Percentage of Persons who have Solved Problems not less than										
	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0
Pupils in advance of their coevals ..	4	37	58	87	100	100	100	100	100	100	100
Backward pupils ..	8	16	41	58	66	75	83	92	92	100	100

DIAGRAM XIV. (TABLE XXVII.)



These results show the possibility of acknowledging that radio can be used for the elucidation not only of the problems of psychical fatigue, but also of the problems of vocational selection. In a word—*radio can be used for psycho-technical researches.*

Contrary to researches undertaken in psycho-technical laboratories, the researches made by radio must lead principally towards the elucidation of problems, not so much of an individual as of a general character.

Radio is especially suitable in those cases in which it is required to elucidate the problems, not of individual, but of general psychology. And in this is the guarantee of its importance for future science.

EARTHQUAKE PSYCHOLOGY. II.

By W. G. Slade, M.A.,
Levin, New Zealand.

(Formerly of Napier, Hawkes Bay.)

Experience is very complex, yet very few of those who discussed their so-called "experiences" of the earthquake disaster would really be aware of that fact. For the purposes of psychological inquiry, however, it is necessary to depart from the usual popular conception of "an experience" in the sense of a mental phenomenon, and to recognise the very complex and variegated nature of human experience in its wider connotation. In a former article[1] it has been shown (*a*) that an instinctive emotional reaction of fear was produced directly and immediately under the stimulus of shock, and (*b*) that, allowing for temperamental differences, this fear-reaction was general. For the most part the popular connotation of "earthquake experience" was restricted to these immediate emotional reactions. It is necessary that we should now draw attention to the operation of other factors which seemed to determine the behaviour of the people and also even the "after-effects". Such can only be achieved by remarking at the outset that the fuller connotation of "experience" includes ideal and volitional ingredients in addition to the affective. To the observer it became evident that the more self-regarding fear-reactions were soon overcome and even suppressed by the higher sentiments, developed by the operation of what can in general be termed social factors.

Anyone attempting to give a complete account of the results of an ordeal so suddenly overwhelming an entire population, must face the somewhat difficult task of elaborating all the psychological factors, together with any pathological phenomena connected directly or indirectly with the disaster. Probably the best course to adopt is to divide the subject into two main sections: (i) Sentimental factors by which the fear-reaction was modified or suppressed. (ii) Pathological after-effects.

---

[1] ***Vide*** **this Journal, March, 1932.**

I. THE MODIFICATION OF FEAR.

As soon as the first rude shock had passed, the line of action of most persons seems to have been determined by the operation of various sentiments which caused them to master their panic and behave more rationally. Without suggesting any relative importance by the order in which these are enumerated it will be of value to classify these under several headings.

(1) *Social Sentiment.*—Parallel to the development of self-regarding mental structure psychologists have long since drawn attention to the formation of social sentiment, a direct consequent of the herd instinct. "Every normal human being grows up under the constant influence of the society into which he is born, and his mental development is moulded by it at every point. He becomes the heir to an intellectual and moral tradition which has slowly been built up, bit by bit, through the efforts of thousands of generations."[1] "It is only by sharing in the collective life of organised societies that the mass of men is raised above a very low level of almost purely selfish behaviour; and it is through such sharing that great numbers of men are raised to a level of consistently public-spirited conduct and even to heights of heroic self-sacrifice."[2] Thus does Prof. McDougall indicate the importance of man's social nature, and the earthquake proved the reality and power of these higher sentiments. All the traditions of heroism were vindicated by the self-sacrifice and unselfish deeds of the mass of the community in the subsequent weeks. In a time of disaster and danger it is not correct to say that man is the instrument of blind selfish instinct, forgetting all else in the frantic effort to save himself.

It is probably impossible to say which is anterior in point of time, the self-regarding or the social. The individual is never at any time purely an individual. He is born not an isolated unit, but as a member of a social group, so that from earliest infancy family ties and community life assert their influence upon him. Unconsciously the individual becomes a loyal member of society, and realises, whether it be for weal or for woe, that his very life, even as an individual, is inextricably bound up with the security of the whole social group to which he belongs.

When peril faces a group it is impossible for the individual, even if he desires to do so, to free himself from the traditions and sentiments with which it has invested him. Before a common danger all individuals feel so bound together that they pool their psychological resources and share a common interest or loyalty. As Freud very fittingly remarks, "It is one of the few noble and gratifying spectacles that men can offer, when in the face of an elemental catastrophe they awake from their muddle and confusion, forget all their internal difficulties and animosities, and remember the great common task, the preservation of mankind against the supremacy of nature."[1] This comradeship in adversity which dissolved all social caste and prejudice and reduced all sections of the community to the common denominator of brotherhood, was perhaps the noblest psychological characteristic of an earthquake crowd. The immediate emotional reaction in the direction of personal safety was thus modified and even inhibited by the influence of social instincts, which, whether antecedent or otherwise in man's personal history, prove ultimately to be the stronger in a time of common danger or distress.

---

[1] McDougall, "Psychology: The Study of Behaviour", p. 230.
[2] *Ibid.*, p. 242.

The existence of an other-regarding instinct received ample proof in the events following the Hawkes Bay earthquake. Parenthood might have been responsible for many accounts of parents rushing through shaking houses risking death from falling masonry in order to rescue helpless infants, or hurrying to the schools where the lives of older children were probably in danger. Family ties may also explain the anxious efforts made to reach or secure news of husbands, sons and daughters engaged in city business or factory life. There were many pathetic scenes of wives searching for husbands, mothers inquiring for children, of men looking for members of their families, and of young people filled with concern for the welfare of parents, brothers and sisters. Such things are natural and expected.

It was in the general and heroic response of volunteer and often self-appointed rescuers, however, that the true social sense was most apparent. With fire threatening to cut off all retreat and thus endangering their own personal safety, in some instances, despite severe injuries already received, a self-forgetful crowd of workers toiled until actually driven back by the flames, with feverish haste trying to throw back the heaps of debris in order to extricate badly injured victims who were pinned beneath. At such a time men responded to that noble practical sympathy which can have only one ultimate explanation, an elemental social sentiment which causes every individual to realise that his own well-being is contingent upon that of his fellows.

---

[1] "The Future of an Illusion", p. 27.

(2) *The Sense of Duty.*—Another secondary sentiment may be described as the sense of duty, which undoubtedly played a large part in the behaviour of Napier citizens on that fateful day. One received many confidences from those who had occupied positions of responsibility. Clerks stayed inside tottering buildings frantically trying to save the records and property of the firms with which they were connected. Far from running away, such men, and women, too, stuck grimly to their posts, and sternly fought down any feeling of panic which urged their flight.

Reference has previously been made to the heroism and devotion to duty of members of the medical and nursing professions. The writer knows of at least one nurse who met tragic death by persistently attempting to carry out the patients of her ward, until the whole structure collapsed and entombed this brave woman, together with other unfortunate victims. A bank-manager told of standing guard, revolver in hand, by the teller's counter, while the staff shovelled the cash into bags and rushed the ledgers into the strong room. Not until he was satisfied that all his staff was safe, and that the valuables were secure, did he himself pick his way out to the street. It was no doubt owing to his coolness that this particular bank lost none of its records and only a small amount of silver which had been scattered by the shake. One might multiply such stories did space permit, but all were in the same strain indicating that devotion to duty or the sense of responsibility, however we term it, played no inconsiderable part in the mastery of fear.

(3) *Habit and Training-Discipline.*—It is impossible to write of devotion to duty without noticing that we have already proceeded a considerable distance along the avenues of man's rational career. Duty is made up of ideal and volitional ingredients. The purely affective sphere of human activity, if such exists, has long been transcended when its force is exerted. Duty is not instinctual but may rather at times conflict with instinctual desires. It is a product of culture, and for the individual it has a connotation built up by conscious experience along the lines of discipline. In popular language it may be regarded as an ideal and as such is an acquired habit of human behaviour, evolved no doubt at a later stage in the history of the race, just as its full force is felt by the mature rather than by the immature mind.

In the development of dutiful habits discipline plays a prominent part. The traditions of the culture to which he belongs impose their restraints upon the uncontrolled instinctual life of a man. As he grows older, these cultural influences tend to become almost instinctive. They form strong social habits and, as Prof. Dewey reminds us,[1] "Habit is second, if not first, nature". In an emergency the results of training and discipline become apparent. We tend to act as we have been taught. Thus in the collapse of the Technical School the obedience of the scholars to their teachers' advice to crouch under the desks rather than crowd to the doors was without question the explanation of the fact that in a large school, with a roll approaching 400, the complete ruin of the building was responsible for less than a dozen fatalities. But for that habit of duty formed by school discipline the loss of life would have been ghastly.

In many business houses the traditions inculcated into members of the staff throughout years of training acted as an antidote to panic. It might be said that the sense of duty which prevailed was a habit formed by the training of loyalty and concern for the welfare of the organisation with which they were connected.

. . . .

At this stage it may be well just to pause for the reminder that in such unexpected situations of disaster and danger, the primary emotional reactions are quickly modified and overcome by secondary responses in which man's rational nature plays a more dominant part. These secondary responses are secondary only from the standpoint of our evolutionary history, in actual fact they belong to the higher and ideal functions of the human mind.

II. PATHOLOGICAL.

In this review of the more negative features the writer is compelled to rely on the results of conversations with Napier residents met on their travels to and from Wellington, his present home being situated on the direct route between these two centres. Some pathological results were apparent almost immediately after the disaster, others would seem to be later developments. Again, without suggesting anything of priority by the arrangement, these must be set down in order.

(1) *Neurasthenia* resulted directly in many instances both from the shock itself and also from the prolonged strain of living in the earthquake area.

It is only to be expected that some would collapse after such crushing experiences. In some instances this was practically coincident with the earthquake, some of the people becoming almost supine. Some refugees had to be helped away from the scene of ruin, others, we have been told, bore up until they were safely in relief camps or in their billets in the homes so kindly opened to them by outside sympathisers, but then these lost all nervous control and complained of all the neuralgic pains and exhibited the other symptoms of acute neurasthenia. Others again appeared to be in the best of health until the actual time for their return drew near. Then the mere anticipation of living amidst such surroundings, and of the continued earth tremors, produced neural disorders in some cases approaching complete nervous debility, with all its distressing symptoms. One's general inquiry has in this matter been confirmed by medical opinion. Some six or eight weeks after the upheaval a doctor reported that a large number of young people were suddenly collapsing, especially those in the late adolescent period of life, *i.e.,* from about 17 to 23 or 24 years of age. Amongst his neurasthenic patients of that date, these were preponderant. He gave it as his considered opinion, and this was reiterated later, that the neurasthenic results of shock were more severe in their case than with either younger or more mature persons. To what extent he would now modify this opinion there has been no opportunity to ascertain.

---

[1] *Cf.* "Ethics", Dewey and Tufts, London, 1908, p. 342.

(2) *The Influence of the Imagination.*—One must not overlook the part played by the imagination in accentuating the effects of shock, especially among the absentees. Compelled to seek remote shelter and deprived of regular household or business responsibilities, such people had too much time for brooding over the happenings of that February morning. Their imagination accentuated its fearful aspects, until the thought of relatives still resident in the stricken town became a constant nightmare of worry. As a result the more sensitive temperaments soon began to manifest neurasthenic symptoms.

During those two months spent almot continuously in Napier after the earthquake the writer had ample opportunity to make introspective and comparative study of the processes by which shock was overcome. It must be remembered that nearly 600 tremors were recorded before the end of February, that a score might take place during the night, and that one lived throughout the whole day on the *qui vive* of expectation. At first the impulse was to try to jump clear to a safer spot. Then two interesting things happened.

(*a*) The mind became almost nonchalant. We realised that it was impossible to find any "better 'ole" and that one must just let Nature do her worst and hope for the best. The following illustration will explain. One evening soon after "The" Earthquake, as we called it, a large crowd was gathered in the temporary post office waiting for the sorting of the mails. An unusually severe "bump" occurred. The building, an old wooden one, creaked and shivered. The door was a small one. Had panic occurred many would have been trampled, but it was apparent that such a course would have been futile. There were many blanched faces but all stood firm and nothing happened. As that was repeated a score of times during the day a kind of stoic contempt possessed one's mind. On the whole the result of hundreds of tremors happening in the course of a few weeks was a kind of fatalism very similar to that of veterans after prolonged trench warfare. A don't-care attitude characterised many. Perhaps it was due to this that fewer cases of neurasthenia were at the time reported in Napier than amongst refugees. The real situation was found to be less terrible than the imaginary one.

(*b*) In this connection it is interesting to note the value of humour. The drawn expression on the face so noticeable at the first, especially whenever another tremor occurred, gradually gave place to smiles and even jests. When buildings were rocking men would grin significantly at each other, and some wag would convulse the crowd with a clever witticism. Such humour was often the refuge from horror. The daily hunt in the debris for the remains of victims was so morbid that some escape had to be discovered. That was found in laughter. Men were not lacking in sympathy, nor in realising the horror with which it was all invested. Far from it. But the strain of tears would have been insufferable. So they laughed and even jested about some tragic incident, and in so doing softened the hardness of their thoughts. To record such stories in black and white might make any reader think that the Hawkes Bay residents had become callous, and that all finer sentiment had been obliterated. For that reason alone one must refrain from giving details. Those by whom Bruce Bairnsfather is still remembered will recognise the kinship that exists between the soldiers he caricatures and the earthquake crowd who were saved from crying by the sympathy of their laughter.

(3) *Moral Control.*—Some have claimed that the earthquake resulted in the weakening of mental and moral control, but in the absence of proper psychological data it is unsafe to insist that the shock alone had produced such mental derangement as to render the subject liable to extraordinary temptation. This, of course, is not unlikely, just as shell-shock was recognised in extenuation of crime. It has been suggested that sexual offences and petty larceny were increased as a direct result of the earthquake. It is not easy

to see how such a statement can either be substantiated or refuted, but two important aspects of the matter ought to be mentioned.

(*a*) The conditions under which people lived for some months were very abnormal, and full of strain. For over a month the entire residual population lived in camps. The sexes were thrown together much more promiscuously than under normal conditions, and it is not to be wondered at if irregularities did occur. Ordinary restraints were lifted. Dwellings were left open and unguarded, for the obvious reason that the earthquake had broken door and window fastenings. What is surprising is not that some minor pilfering occurred but that there was never any sign of widespread looting. The law-abiding tradition of the British stock was wonderfully upheld under very abnormal circumstances.

(*b*) It is unsafe to generalise until one has had opportunity to consider the previous character or disposition of any such offenders. If it is probable that some yielded to strong temptation owing to unusual circumstances, it is perhaps even more probable that those who yielded already lacked such strong personal convictions as would safeguard them from moral lapse. As an example we may remark on the fact that ordinary conventional life was completely impossible for at least two or three days. People of both sexes were huddled together promiscuously, glad of the companionship of the crowd, lying down at night to rest, if not to sleep, regardless who it was that lay alongside. The feeling of a male protector undoubtedly caused impressionable girls to cling to the nearest man whenever an unusually severe tremor occurred. Under such circumstances, unusual temptations might arise, the earthquake being only the indirect cause. Similarly it may be said that the ordinary ideas regarding the sanctity of private property had to be disregarded. In the interests of public health many houses had to be entered and larders cleaned up lest the putrefaction of household stores result in an outbreak of typhoid or diphtheria. The need for foodstuffs necessitated the pillaging of gardens, and once such a necessity arises there are always some who carry the practice too far. Breaches of the moral law must be explained, therefore, not so much as necessary concomitants of the earthquake as natural consequences of the relaxing of artificial external restraint, consequences to be expected not only after an earthquake but in any similar circumstances where ordinary conventions had for the time being to be set aside or modified.

(4) *Loss of Memory.*—Another result of the earthquake of which many complained was loss of memory. A medical friend, whose opinion has been invaluable both in respect of this point and also in regard to other sections of the subject, has stated that this feature has been very prominent even more than a year later. Quite a number remarked on their forgetfulness as to the names of places and people. One business man, an estate agent, whose records were a total loss, was faced with the difficult task of compiling from memory a new register of clients. He stated that even the best known of his clients could not be remembered. In his case memory revived after a few weeks. The writer failed to come upon any case of complete loss of memory, though some might have occurred. When it is remembered that loss of memory usually accompanies general neurasthenia, this feature occasions no wonder, and as the general nervous strength of people revived so did their memory strengthen. The medical friend referred to stated that some of his patients had suffered a later collapse of memory, probably a result of the prolonged strain, and others again had continued to suffer from the disability for a somewhat extended period.

(5) *Complexes.*—Amongst the direct pathological results are several which may be grouped together as complexes.

(*a*) *Claustrophobia.*—There was a general fear of closed doors. Not that one was panicky, nor even that one could actually hope to escape far in the event of another severe shake, but everybody had a dread of being caught like a rat in a garret. Some soon resolved this complex, but with others it became a more permanent habit of mind. Especially at night when dwellings began to be reoccupied, bedroom doors would be propped ajar. Many stated that even in the use of the bathroom the door would be propped partially open lest the occupant be trapped. Evidently the horror of being surprised naked was less troublesome than that of being unable to escape. Some of the accounts of nightmares gave prominence to this phobia, sleepers waking in great anguish of mind under the impression that that were unable to escape from some stifling prison in which they were enclosed.

(*b*) *Fear of Solitariness.*—The individual felt the need of companionship, especially at night. Death itself might be terrible, but to have a companion seemed somehow to rob the situation of much of its terror. A returned soldier said one day, "Just as we felt during the war, two will go where one alone dare not." It mattered little who the companion was, anyone was preferable rather than to lie down to court sleep alone. Especially during the first fortnight stories were told of men and women occupying the same sleeping quarters, thus breaking one of the strictest conventions of civilised society. Such unconventionality required no apology at a time when all understood the dread of a lonely night. To feel that someone else was near served to steady the nerves and permit one to settle down to a night of rest. The writer was obliged to spend one or two nights alone in his garage. Needless to say they were almost sleepless, and it was with a feeling of profound relief that at last arrangements were made to join a nearby camp.

(c) *Susceptibility to Panic.*—Until the newspapers recommenced publication there was no means of giving the lie to the wild rumours that so quickly spread abroad. There were many wild predictions of tidal waves, of further seismic disturbances, of lawless looting, and other horrors. For a few days these were easily believed. When the cry of tidal waves was thoughtlessly raised, many rushed for the hills, and at every fresh alarm a similar reaction of panic was noticeable in some quarters. Fortunately this nerviness soon died down. As official news was obtainable and the residents became used to the scene of chaos and to the recurring tremors they ceased to be alarmed.

(*d*) *General Earthquake Complex.*—This cannot be said of the permanent earthquake horror that was aroused with every fresh disturbance. This was involuntary. So tremendous had been the shock of the earthquake, that most people experienced violent gastric disorder and also acute rigors. For a considerable time, even while refusing to run away, the slightest tremor was sufficient to produce the same mental and physical results. The writer has experienced a number of slight earthquakes since coming to Levin, none of them in any way comparable with the Hawkes Bay upheaval. None of these are felt without an involuntary response of abdominal nerves. Not so long ago one occurred soon after midnight, while he was asleep. He wakened feeling as if the stomach had been churned up, and was afterwards informed that a slight earth tremor had occurred at that time. Some of the Napier residents still dread a brick building, simply because such structures suffered so terribly in the stricken area. It is doubtful if this earthquake memory will ever be completely outlived by those who passed through the terrible experience. Down in the subconscious processes it will remain as a permanent record. The courageous people set to work at once to rebuild their shattered town and to restore all the institutions which had been disorganised. With determination they have fought against all panic and other effeminate tendencies, but all to whom the matter has been referred state quite frankly that they feel quite definitely the general after-effects of the disaster. One friend, a prominent business man, writes in this strain: "The upheaval has left its mark upon many people. It is quite noticeable with folk here who appear to have aged considerably. . . I have registered pretty well every shake since the upheaval, and feel sometimes that I could do with a long spell away." A Levin fellow citizen to whom this paragraph was read over, said: "I can corroborate that. The other day I met Mr. X, an old Napier friend, and I thought the earthquake had made him look twenty years older. His hair has become quite white." Despite that feeling the brave citizens are giving their strength to restoring what was a beautiful city with the dream ever in their hearts, "A bigger and a better Napier".

. . . .

It is too much to hope that this survey can have added anything fresh to psychological theory. It is merely desired that the faithful attempt to analyse the whole complex experience through which one passed will furnish sufficient material for those interested in psychological matters to draw their own conclusions regarding many modern trends of opinion. The writer may at least be permitted to venture the conclusion that man is by no means the creature of unrestrained impulse. In an hour when it might be expected that instinctive behaviour would carry him away, his actual conduct shows that reason is enthroned, that he acts, not emotionally, but thoughtfully, or ideally, in the true sense of the word, uniting volitional and cognitive powers to control and even inhibit emotional reactions.

THE PRINCIPLE OF UNCERTAINTY.

By D. BROWN, Ph.D.,
Lecturer in Physics, Auckland University College.

MODERN Physics regards the material universe as being made up of three fundamental entities, electrons, protons, and light. Electrons and protons are indivisible specks of negative and positive electricity respectively, which may be associated in various ways to form neutral or uncharged atoms, whose further association builds up the solid bodies of daily experience. The inclusion of light in the scheme of material things is necessary, since light is ponderable like ordinary matter, and indeed behaves in many ways like a stream of corpuscles.

This corpuscular representation of light has returned to favour within recent years, after having been abandoned for over a century in favour of the wave theory; we now know, however, that there is a class of phenomena which is most easily explained by the supposition that light consists of a stream of isolated particles or "quanta". The clearest example is afforded by the scattering of light by matter; when light falls upon an assemblage of electrons and protons it experiences a series of "collisions", the light quanta being scattered sideways because of their impact with the members of the assemblage, while the electrons or protons recoil at each collision, very much like so many billiard balls.

Nevertheless it is convenient at other times to employ the wave representation of light (in dealing with interference and diffraction, for example), and this we do without laying ourselves open to the reproach of inconsistency, because in truth light is neither a wave nor a particle, and is in fact only describable in mathematical terms. If we attempt a description in words, we must make use of incomplete analogies, which must be chosen to suit the occasion.

Classical dynamical theory, which is seen in its perfection as applied to astronomy, completely fails to describe the behaviour of the tiny particles with which atomic physics has to deal, and thus there has arisen the quantum theory, which in the 30 years since its inception has achieved successes in atomic theory in every way comparable with those of classical astronomy.

It was pointed out by Heisenberg, in 1927, as an inevitable consequence of the quantum theory, that there is a well defined limit to the accuracy with which observations of material particles can be made, such as must prevent the acquisition of sufficient data to predict the future movements of the particles. For example, in the case of a single electron the product of the errors in the measurement of its position and velocity respectively must always be greater than $6{\cdot}5 \times 10^{-27}$ (the units of measurement being centimetres and seconds).

If we could observe the position of the electron at two different times, its velocity and future motion might be calculated. In order to see the electron, and note its position, it is necessary that at least one quantum of light should be scattered from it, the quantum then entering the eye of the observer. This process, however, causes the motion of the electron to be disturbed, because although to us the weight of a light quantum is inconceivably small, from the point of view of the electron it constitutes a very heavy projectile. The illumination to which we have to subject the electron in order to make it visible, causes the latter to recoil by an unknown amount, so that its future motion is uncertain. It might appear possible to apply a correction for the recoil, by noticing the angle through which the light quantum is deflected by the electron, but this angle is uncertain on account of the finite width of the aperture of the eye (*i.e.,* the pupil). In accordance with the laws of optics, if the pupil of the eye is diminished in size, the capacity for observing detail is impaired.

Again, it might be thought possible to determine the direction in which the light quantum is scattered, by noticing the direction in which the observer tends to recoil at the moment of perceiving it, but this makes it necessary to measure the position of the observer, which is again uncertain, and so on.

It is theoretically possible to determine with complete accuracy *either* the position *or* the velocity of the particle, but if we select one of these quantities for exact measurement, the other becomes quite indeterminate. Or else we may decide to accept a degree of error in both determinations, which will then be governed by the previously mentioned rule for the product of the errors.

In short, the inevitable reaction between observer and what is observed, introduces a certain indefiniteness into our measurements of the ultimate constituents of matter.

The foregoing example is only one of many, and the uncertainty principle can be taken as operating in all cases where data are being sought which might make the basis for prediction of future events.

The original Heisenberg theory permitted, on the other hand, the precise determination of past movements, but Einstein has recently shown that this deduction is invalid, and an equal uncertainty prevails in this connection.

The quantum theory is a body of exact mathematical laws which enable the average behaviour of an assemblage of particles to be described with any required degree of accuracy, although any single particle seems to betray an individualistic, discontinuous behaviour which cannot be described by the theory. The most striking example of this occurs in radioactivity, where an atom which has remained unchanged for centuries will suddenly and unpredictably eject an alpha particle. The average rate of disintegration of an assemblage of atoms, however, can be linked up with the velocity of the alpha particles in a way that is a triumph for theory.

It is a debatable question whether there is anything to be gained by imagining the law of causality as operating between events in atomic physics, since it appears to be impossible of exact verification and many lines of argument suggest that these events are governed only by probabilities.

The modern tendency is not to attempt to interpret the mathematical laws as describing simple happenings in space and time, but to regard them only as a unifying scheme by which the great complexity of the experimental data can be simplified and arranged. Those who prefer to regard the theory as descriptive of process which can be pictured in space and time do so at their own risk, and must reconcile themselves to an inevitable vagueness in the picture.

THE PROBLEM OF THE UNRULY CHILD.

By John Lawler McDermott.

The subject of the following remarks constitutes one of the world's greatest problems. Its vital importance is expressed by its daily presentation for solution in millions of households, where domestic turmoil illustrates the pressing necessity for such a solution of the problem of the unruly child as shall be both practical and universal. Now I venture to state, and I hope to demonstrate, that there is and can be only one such solution to this difficult problem, and that it has no marked variations. I realize that I am dealing with a delicate topic and am liable to offend. Therefore I ask you to bear with me and to adopt an attitude of tolerance towards my candid expressions of opinion.

There is an old saying, "A drop of honey catches more flies than a hogshead of vinegar." (I plead with so-called "over-indulgent" parents to read further.)

Let us consider the family circle where the children are unruly and dissension is rampant, and the methods usually adopted by parents of such "incorrigibles" in their determined efforts to elicit obedience. A threatening word is sometimes used successfully. If this does not suffice a slap is sometimes administered; but a cut with a cane or a strap seldom fails. The performance, however, has usually to be repeated on subsequent occasions. Unfortunately, love and honour do not follow in the wake of obedience thus obtained; and a child so treated from infancy will almost invariably prove a sad disappointment to his well-meaning but despairing parents. A boy accustomed to intermittent thrashings from his father will endeavour to avoid him. The mere sight of his parent eventually exerts such a strong hypnotic influence on the half-broken spirit of the youngster, that he develops sneaky tendencies calculated to set up a vicious circle whereby the father in turn learns to despise his offspring. It is a simple and obvious fact of human nature that the child cannot love whom he fears; that the parent cannot love whom he despises. It is quite apparent, then, that the ultimate outcome of the constant employment of such drastic measures is destined to obliterate in both parties the prime essential, love.

Let us now see if we cannot proceed so as to instil into children the three essentials, love, honour and obedience. I shall first propound a few theories, demonstrate by an example or two, and then, if I may, proffer a little advice.

The root of the evil lies in the parents' ignorance of the principles of everyday psychology. There is no need to be technical. Parents either vastly under-estimate or are entirely ignorant of the value of kindness and gentleness, combined with firmness as a means of bringing about the much-desired disposition in children. It is much more palatable to a child to be asked rather than ordered to perform a certain act. The first implies trust, the second suggests distrust of the child's willingness to conform. This sensation being conveyed to the child reacts detrimentally on him. Acting in accordance with a demand he does not and cannot display the same enthusiasm in executing his parent's order as if he had been merely asked to do the same thing. One is asked to do a thing only when it is expected that he shall comply. One is ordered to do a thing only when it is expected that he may not comply. The terrific power of suggestion is working all the time, exerting good or evil influences equally efficaciously; and bearing this in mind it is advisable to remember that it is far more prudent to praise the child's good qualities than to chide him for his faults.

It is a great mistake to be continually interfering with the liberty of the child. Let us test the veracity of this statement by an illustration. A child is asked if he would mind running on an errand for someone. Now he feels that he does it of his own free will, and therefore he rightly experiences a feeling of goodness at having done something for somebody willingly. Whereas a child who has been sharply told to do likewise has had his liberty interfered with. Realizing this, he complies reluctantly and is disappointed at having been robbed of his right to that same sensation of goodness, attendant upon an act willingly done. I daresay many will oppose this reasoning on the ground that the intelligence of a child is not great enough to view the matter in this light; but, believe me, it is.

How many times do we find ourselves surprised, nay bewildered, at the intelligence displayed in some child's utterance. How common it is for parents to find themselves completely puzzled by some such simple question as, "What makes the wind blow, Daddy?" Do you think there is no more in this than idle childish chatter?

Let us now turn to a brief consideration of grown-up children. Suppose a son returns home from a party intoxicated. We will not consider the nature of the boy's previous home training, for I contend that if he had received a liberal amount of such training, and that the policy of being gently firm had been adopted by his parents and persisted in from cradle days, he would never have injured his parents' feelings in this way. Now let fathers ask themselves this question and answer it candidly for their own benefit: "When you behold your more or less incapable son arriving home, is your dominant thought one of the insult sustained by your parental dignity and pride, with a resultant feeling of unbridled anger, or one of pity for your wayward boy who is bearing the brunt of your apparent incompetency to keep him on the straight and narrow path?" Perhaps a little serious thought on this question will be interesting and enlightening, for it is a question worth answering candidly. The offending youth is possibly subjected to a sound thrashing; but I venture to suggest that in most cases such an act is for the most part, unfortunately, only a vent to a father's pent up feelings. I must, however, agree that such calamitous tendencies are the result of instincts more human than wise, but more important than this, the son as a result of repetition of similar acts becomes imbued with feelings of sullen moroseness and discontent. These feelings, playing upon his imagination, assume proportions which may seriously threaten his normal mentality, unless he finds consolation in some haven of human sympathy and understanding.

I choose an extreme case deliberately because, from the climax it presents, the dangers of the preceding effects are more vitally understood.

One must remember that, though love and fear are humanly incompatible, gentleness and firmness are not; and therein lies the solution of the problem. We must instil into the delicate and sensitive minds of our offspring, that what we say is right and that we expect our wishes to be fulfilled; but most essential it is that there be in our words a strong under-current suggestive of gentleness, kindness and love; for, once fear takes possession of the young intellect through a harsh word or an unkind act, our own ends are defeated, because fear tends to over-ride and obliterate all other sensations. The time has come when we must realize that the rearing of a family is a science calling for an intimate knowledge of the psychology of personality as it relates to children. It is only thus that we can reasonably hope to pervade the atmosphere of our family circle with contentment, happiness and radiant sunshine.

I shall conclude with the following story:

Once a little boy was asked by his father to help him pick some weeds out of the garden. The little boy wanted to go to the "pictures" instead, and growing very annoyed refused to do his parent's bidding. The father did not get annoyed, nor did he beat the little chap, nor did he allow him to go to the pictures. Instead, he led him gently into his bedroom, sat him down and said: "Billy, I know you will always do what I ask you to do, because what I ask you to do is the right thing. A boy who always does the right thing will be very happy and everybody will like him. I want you now Billy to tell me that you will help me in the garden. When you are ready we shall both go; neither of us would like to be stuck in this bedroom all the afternoon on this beautiful sunny day." Billy was crying and still seemed unwilling. The father continued to speak in a kind and gentle voice; but for all that he was firm and did not waver from his original purpose of teaching the lad obedience. In twenty minutes they both walked out into the garden. Billy displayed a wonderful enthusiasm in helping his father. After all, was he not doing it of his own free will? He was merely asked to do it, that's all. His daddy was still the most wonderful daddy in the world.

The following day, the father asked Billy if he would like to go to the pictures. Billy went and enjoyed himself.

At odd times after that incident, Billy was again led to his bedroom; but on those occasions it was a matter of only a few minutes before they were both out again and the best of pals. Billy and his daddy never have to discuss differences now in the bedroom, because they never differ. Billy always does what his parents ask him to do. He is never beaten. He is never punished. He is never scolded. But he knows that when he is asked to do a thing it is going to be done.

DISCUSSION.

SCHOLASTICISM VERSUS REALISM IN ETHICS.

By H. B. Loughnan, S.J.,
Newman College, University of Melbourne.

The following pages are intended as a reply to Professor John Anderson's article in the March number of this Journal, "Realism Versus Relativism in Ethics". Scholasticism comes under the writer's sentence of condemnation; for though its system of ethics would be incorrectly described as relativism, still it defends quite a number of those positions which are so vigorously attacked in the article in question. I hope to show that the attack is groundless, and that the realism which is defended by the Professor is untenable.

I shall have several harsh criticisms to offer; but I am in the happy position of knowing that, even apart from his genial kindness and forbearance of character, the Professor's philosophic principles must prevent him from feeling the slightest resentment: that even if in spite of the *wish* not to do so (a word which can hardly find a place in his realist vocabulary), I misrepresent him, still he is logically incapable of bearing the least ill feeling against me. For he is avowedly a thoroughgoing determinist who holds that "human freedom is rooted in mythology", and that "all our actions, all our questionings and answerings are part of the movement of things" (p. 5). Hence whatever are the expressions I use, or the conclusions at which I arrive, he will please consider these to be the inevitable and necessary result of his own questionings and answerings in the article which I am about to criticize. "There is no unhistoric 'I' apart from (my) activities"; hence, if, as I fondly hope, his activities become focussed upon my opposing ones, they can never become focussed upon me as their responsible cause. He can, on his own principles, and I am sure will, bear no more resentment against me than I would against a motor car whose engine back-fired when I cranked it by hand. It all has to be; and no blame can attach to anyone. With Spinoza, the determinist must "reason away" all such feelings.

I shall not attempt to set out the Thomistic theory of moral obligation. It is essentially realist, in spite of its reliance on the notion of an ultimate end; it can furnish reasons for holding to a radical distinction between good and evil, right and wrong; it is not based on "preconceptions"; its view on human freedom neither "plays havoc with the anthropological sciences", nor does it render physical science an impossibility. For a scholarly exposition of the Thomist position in Ethics, I would refer the reader to Cronin's "Science of Ethics", Vol. I.[1] I shall restrict myself to several points of destructive criticism of the Professor's article, being content to let the reader gather the main features of my own position from the arguments which I shall adduce against those I criticize.

(1)

The author rejects the notion of causation. The most he will admit that can be known is a "natural or historic relation between natural or historic things"; *i.e.,* we can know only that events occur in certain sequences; we have not a right to say that we know a cause which is more than a mere historic event found in connection with another event. He would in particular reject the rightfulness of giving the name 'knowledge' to our knowledge of a final cause as being one of the real things "*whereby*" an event happens.

Now the scholastic theory of ethics relies essentially on the doctrine that (*a*) an end or purpose is a reality; (*b*) an end is partially, but really, that "*whereby*" an event occurs; (*c*) an end can be known. This position is established as follows: The philosopher, whether "realist" or "relativist", must surely inquire *why* things are; he is concerned with more than the "natural or historical relation between natural or historical things"; he aims at more than the mere listing out of facts. Now enquiring into the "why" of things, we fully agree with the Professor that we must not start by supposing anything to exist of which we have no experience; with him we appreciate the Milesians' rejection of "non-natural powers supposed to lie behind events and occasion them"—taking this to mean that a philosopher must not start by *postulating* the existence of unseen realities; though there is nothing unphilosophic in *proving* unseen things to exist (the scientist, whether of the realist or the relativist way of thinking, believes in the existence of the unseen side of the moon).

Now, starting without any preconceptions, we can show that a purpose or end is a reality. For let us analyse the most simple and obvious of real facts. I am sitting on a sunny terrace; a pen is travelling hurriedly over the paper on my knees; Professor Anderson's article is before me, scored and annotated; activities other than writing have been damped down. It is not far-fetched or unphilosophic, or deserting the standpoint of realism to ask *why* these things are what they are; nor is it going beyond "definite historic events" to examine the given in consciousness. But one of the data of consciousness is that the above-mentioned events are what they are, because of an article that is to be. There seems sound reason for saying that the future real article is that "*whereby*" several events occur in a particular ordered way. We can therefore assert that a final cause—an end—is a reality: and is a real, though partial, explanation of an activity or of several activities: and that an end can be known. Professor Anderson will have to expand considerably his meaning of "force", if he is to analyse the above situation in terms of forces acting and reacting. He cannot, while true to the position of an unbiassed philosophic observer, refuse to take cognizance of a fact of consciousness.

---

[1] Chapters III, IV, V, XIV.

(2)

". . . it is absurd to say that we study ethics as a means of determining what to do" (p. 4). Here the Professor agrees with the modern English Absolutist; for Bradley and Bosanquet would stigmatize as "a useless and dangerous pedant" a moral philosopher who would dare to formulate any single principle that never must be violated. However, the agreement between the realist and the absolutist extends only to their conclusion; they arrive at this from very different premisses.

The reason alleged for the author's statement cited above, is nothing more or less than a radical misconception of the position of his chief opponents. "The leading moral theories" (and presumably Scholasticism is included) "up till quite recently, all *assume* certain higher moral powers whereby historical events can have moral characteristics in a secondary sense, just as the metaphysician *assumes* an ultimate reality whereby historical appearances can have a subordinate reality and be graciously permitted to appear" (p. 3).[1]

Now I submit that the Scholastic philosopher, whether moralist or metaphysician, makes no such assumption. For he claims that he can establish by reason (and again without relying on any "preconceptions") (*a*) the reality of an objective end which *de facto* man strives to attain, and (*b*) the reality of a Being whose very nature is its existence. It is not my duty here to set out the proofs for these propositions. But it is the duty of an author to vindicate his very serious charge that these tenets are assumptions—a duty which, after several attentive re-readings of his article, I can find nowhere fulfilled or even attempted by the Professor.

---

[1] Here the reference seems to be to Bradley's Appearance and Reality, for whose opinions I do not hold a brief.

Now when a historically famous school of philosophy submits proofs for the reality of an ultimate end, or objective, of all man's activity: when it soberly expounds a system of ethics based on nothing more than the reality of the end of man's various correlated activities: when it produces arguments in favour of its assertion that reason can discern *some* general principles of right and wrong: when it gives a clear and unambiguous meaning to its terms "morally good" and "morally bad": when a very large section of this school (*viz.*, the Thomist) does NOT appeal to commands and prohibitions as proofs for right and wrong conduct—in the face of all this it is difficult to understand how an author conversant with the history of philosophy could have written this sentence: "The use of these relativist or transcendental notions, necessarily *vague* as they are, makes it possible to advance certain *unspecified* demands, which would be *opposed*, if mental *confusion* were removed" (p. 4). Can the writer of this sentence prove: (*a*) That the notion of a real ultimate objective is *vague?* (*b*) That the moral principles deduced from this are *opposed* or inconsistent? (*c*) That the holders of these views are the victims of *mental confusion?* At least the author attempts no such proof; and the reader might legitimately demand a proof for such grave accusations.

(3)

But there is a paragraph which seems to be intended as a proof for the denial that ethics can be a normative science. This proof consists in rejecting an argument which, so far as my knowledge goes, is held by no one: "It may indeed be admitted that *having studied ethics* we shall be able to do things that we did not do before. But this applies as much to the study of mathematics or physics as to the study of ethics; it is a consequence of the fact that studying is a part of our behaviour, and influences other parts of our behaviour. It cannot on that account be said that what is studied is our behaviour, and that mathematics, *e.g.*, instructs us in our mathematical behaviour and shows us how to reach the mathematical end (how, for instance, to reach infinity). Knowing mathematical facts, we can do certain things; knowing ethical facts we can do certain other things. It is thus possible to speak of 'applied mathematics' and 'applied ethics'. But if we are going to call the latter 'application' our moral behaviour, we may equally well call the former our mathematical behaviour" (p. 2).

This forceful paragraph is worthy of examination. Let me list out four points of criticism:

(*a*) Can the author point to any single philosopher (except those of the "will to power" school, both ancient and modern), who on any occasion seriously defended the view that the mere *"ability to do things which we did not do before"* is the object of ethical study? Can he point to a single philosopher who ever based the claim of ethics to be a normative science, on the strange claim that ethics provided us with the ability of doing things which we did not do before? If the Professor cannot point out one such philosopher, then his comments that follow are irrelevant to the question at issue. It would seem, then, that instead of proving that it is an assumption to say that ethics "can teach us how to live, or what to live for", he has himself assumed as true what is false—*viz.*, that any philosopher ever adduced the alleged proof referred to above.

(*b*) The author's determinism quite consistently leads him to the conclusion that if one man studies mathematics and another does not, their resultant "behaviour" will be different; and he concludes that the same would be true of ethics. But by what logic does he draw the further inference: "it cannot on that account be said that what is studied is our behaviour"? Surely the proof that we can study our "behaviour" is the fact that we do so. And I submit that by studying how we do "behave", we can, quite rationally and without any "obstinate confusion", learn how we *ought* to behave. To take the illustration of an earlier paragraph—the study of my "behaviour" in procuring paper and pen and a copy of the Professor's article, and in writing pages of words, might lead to the knowledge of a *real end* to be attained by this "behaviour", *viz.*, an article in reply to his. Now, knowledge of this end surely gives further knowledge of how the sentences *ought* to be written. Similarly, a study of human "behaviour" (including the behaviour of the mind) can lead to the knowledge of a real end to be attained by man; and a knowledge of this real objective will furnish knowledge of the means to be taken; for one's reason can see what is good *for* the attainment of this end.

(*c*) The Professor argues that because in studying mathematics the resultant mathematical behaviour does not terminate in the attainment of the mathematical end ("*e.g.*, to reach infinity"), therefore the studying of certain human activities cannot teach us how to reach the ethical end. I must confess I have been unable to follow this argument. It seems to be based on some "obstinate confusion" in the use of the word "end". Let us then try to clear away this confusion by defining the term as "an object which I wish to attain to"; and let us consistently stand by this (or any other) one meaning.

Now the Professor's adversaries would say that ethics can teach us how to attain to a certain end or object. But surely he cannot mean to disprove this claim by pointing out the obvious fact that mathematics do not teach us to reach infinity. No one makes any such claim for mathematics; no one is bound to make such a claim; no one can show any logical consistency in favour of such a claim. What, then, is the point of the Professor's illustration?

(*d*) Again, does he not in this remarkable paragraph assume (without any proof or explanation or even excuse) that the *only* possible result *upon us* of the study of any subject is a change in human behaviour; and that this change is as automatic and as inevitable as the change in canine behaviour when a feline object is studied? But if he does make this assumption (and it is certainly implied in his determinism), at least he must consistently stand by it. And if he stands by it, then many of his own sentences are meaningless. For what can he mean by speaking of the ethical theorist having a "task"? Can he be consistent when framing the sentence: "The *task* of the ethical theorist will be to find goods and consider their ways of working" (p. 5)? Consistently with his theory of forces and with his determinism, he was entitled to write only this: "What *is called* an ethical theorist is a force which operates on other forces which operate in man." The ethician has no more a "task" of finding goods than water has a task of flowing down hill; it just does so because it cannot help it.

(4)

A short sentence which shows that the author has never considered one of the most famous ethical theories in history, is found on page 3: "If the obligatory . . . is *what we are to obey,* and the end is *what we are to pursue,* then nothing at all has been said as to what these things themselves are; we do not know what to obey or to follow."[1] Had the writer not been so unfamiliar with the history of philosophy as to illegitimately ignore that system which *par excellence* insists on "ends" of human actions and on "obligation", he could never have used the above words. For if there is one feature which distinguishes that system it is its *realism* and its insistence on our knowledge of the real. Without any "relativist preconceptions" it examines the real, given in experience: finds out the nature of the real, the ways of being real, the explanation of being real, the effects of being real, the reality of ends both immediate and ultimate, the reality of the compulsion exercised on the human will consistently with the reality of free will.

---

[1] The italics are in the original.

(5)

The paragraph on page 5 relegating human freedom to the realm of mythology is likewise a misrepresentation of one of the main theories he is so vigorously combating. The author should bear in mind: (*a*) that the Thomist does not identify the "good or right" with the "commanded or advised"; (*b*) that the notion of "agents" and "instruments" does not "play havoc with the anthropological sciences". For I presume that the Professor would say that he was the agent that directed or moved his hand to write the article in the March number of this Journal: and that this article was intended by him to be the *instrument* for conveying his thoughts to his readers. And if he were to grant this, what havoc would occur with anthropology? (*c*) "The suggestion" of human freedom is NOT "that things go on in their historical way, until we step in and alter their direction for the better—or the worse". The proved fact is that *some* things can be altered by our "stepping in". And I presume that the Professor would admit that the writing of his article was not the mere occurrence of an activity: that the activity did require his own volition to "step in" and stop the writing at page 11. Or does he hold that his activity of writing just occurred and just stopped, simultaneously with his wish to begin and his wish to stop? That his desire to convey his opinions merely occurred before he put his pen to paper, but was not that "*whereby*" his pen started writing? That his knowledge that he had said all he wanted to say, occurred at the same time as he stopped writing, but in no way accounted for the stoppage? I submit that the Professor could answer all these questions as the ordinary man answers them, and yet escape the charge of holding a theory "rooted in mythology", or of implying there was any absurdity in the notion of "agents and instruments".

Does he really mean that "to accept a view of this kind (namely, human free will) would be to give up all science"? Instead of supplying him with the standard answers to this stereotyped objection,[1] I would suggest this question: Does he give his adversaries no credit for logical thinking? Does he hold that all who ever defended free will were utterly inconsistent in their pursuit of science? Does he, *e.g.*, think that a person who believes he has not got to do all he does, makes allowance for the planets and stars behaving in a strange way owing to someone "stepping in and altering their direction"? Or suppose, for the sake of argument, that a doctor did not "have to" when he saved a man's life by operating on him, would the Professor hold that medical science at once becomes an impossibility?

---

[1] They are to be found well put in Maher's Psychology, s.v. Free Will.

No, Professor; there can be urged real difficulties against this unique cause which we call the free human will; it does suggest many deep metaphysical problems. But if you are going to advance a serious argument against it, you must find one that is more cogent than the assertion of incompatibility between free will and physical science. And, I might add, when you assert that the doctrine is "rooted in mythology", there are some of your readers who would be interested to know what is the myth that bore this strange fruit.

(6)

By way of introduction to the discussion as to what the "realist" means by ethical or moral goodness, it will be interesting to examine two arguments parenthetically introduced by the author (p. 7). His thesis is: "Aristotle's distinction between goodness of character and goodness of intellect is unsound." We can therefore set out the positions of the two thinkers in this way:

Aristotle: "No mere goodness of intellect is goodness of character." (An "E" proposition.)

Professor: "Some mere goodness of intellect is goodness of character." (An "I" proposition, as the contradictory.)

We have now to examine the two proofs which the Professor gives for his position. I take them separately as No. 1 and 2.

No. 1. "To have a good character is simply to be good. Simply to be good may *involve* intellectual activity."

Therefore some mere goodness of intellect is goodness of character. But this is a logical blunder on the part of the Professor of Philosophy. The argument cannot be expressed except as a syllogism of *four* terms. Its patent fallacy is evident when we take a parallel case expressed in non-syllogistic form: "The distinction between water and oxygen is unsound, because simple water may involve oxygen" (!).

No. 2. "Even if to have a good intellect means only to be good at thinking, *this* still *leaves it possible that intellectual proficiency is ethically good.*" This when expressed as a "simple categorical proposition" runs: "Some mere goodness of intellect is goodness of character." And this turns out to be not a *proof* for his contradicting statement, but a mere re-statement of it. He proves Aristotle's distinction to be unsound by asserting that it is so!

One might charitably hope that the Professor's familiarity with Aristotelian Ethics is greater than his familiarity with Aristotelian Logic.

(7)

Ethical goodness, the author assures us, is in no way bound up with the ideas of command or prohibition. On this point I would note: (*a*) that the scholastic who, as a relativist of a sort, comes under the Professor's ban, undoubtedly admits of "commands and prohibitions" in moral matters. But he does not *assume* that there are commands, nor does he then assume that there are certain principles that are commanded and others that are prohibited; (*b*) that it is an indisputable fact that a very large section of mankind has the notion of right and wrong. The notion, for instance, that it is right to honour our parents could be called a universal one—though there is no universal agreement as to *how* we should confer the honour. But what is of interest is the explanation proffered by the realist for the origin of these notions. This explanation is given on page 7. To appreciate it we must remember the author's theory of "realism". According to this, we have no right to speak of anything being real or genuine or worthy of being called a 'thing', unless it is a concrete material object exercising a force; *e.g.*, when the *novelty* of some of the Professor's arguments arouses my *curiosity*, and when an *understanding* of their *meaning* arouses the *desire* to advance some counter-arguments, then the things expressed by the italicized words are nothing but material things exercising force; the whole process must be expressed in terms of "the movement of things".[1] The presence of his article before my eyes is followed by an energizing in my brain (my desire to think), which is followed by another energizing (my desire to write), which is followed by an energizing in my hand (my writing), which synchronizes with further energizing of my brain (my thinking of what I am writing).

---

[1] Here I may be misrepresenting the author's position. But if I do so, he must remember that even if I had deliberately intended to misrepresent him, he could not on his own admission say that this was not an ethically "right" thing to do; for he tells us: "It is better to drop the word 'right' from ethical theory" (p. 6).

Since we are to examine only "forces" when we are studying ethics, let us examine his explanation of how we came to entertain the notion of right and wrong, as of things ordered or forbidden: "We must start from the fact that [a] community is a historical force or set of activities. Now here are relations of support and opposition between any activity whatever and others surrounding it; and likewise we can say that any historical thing has its characteristic ways of working, ways which are variously affected by its historical situation." Thus certain states of things are engendered and certain others are prevented. The author next assures us: (i) that these resultant forms of operating "may be called the *demands* or requirements of society"; (ii) that "when these demands come to be formulated by members of society—and this takes place through conflict among the demands of members—we have the recognition of what is *required* and what is *forbidden*" (p. 6).

Now it is difficult to understand how man, with no concept of a command or prohibition, could find himself with such a notion merely by observing the interplay of *forces.* We are to suppose that man who "historically" (= "as a matter of hard fact") has neither the concept nor the experience of anything being commanded or prohibited, generates that notion merely by seeing things happen; he sees that he and others always act in one way, while different people always acts in another way. Now, I submit, the impossibility of this account becomes apparent when we apply the reasoning to an exactly parallel case: Suppose a man to spend ten years continually *forcing* a ball up into the air, and gravity to spend the same time *forcing* it down. Would the Professor venture to tell us that the man would "recognize" that it was *forbidden* to have a ball permanently in the air, and that it was *commanded* to keep the ball on the ground? Here we have "relations of support and opposition" between two sets of "activities", and the prevalence of one force over the other; but we certainly have not got the notion of a *command* or a *demand.*

Or we might vary the illustration to suit the Professor's explanation of the origin of "taboo" (*i.e.*, an unreasonable and conventional system of interdicts): Suppose that a community of human beings, without any concept of a prohibition, were to observe that their activity of stealing the cows of a neighbouring community was consistently followed by the unpleasant activity of retaliation. Would there spring up the notion that it was "taboo" to steal cows? Surely not—unless, indeed, fear of consequences is synonymous with prohibition of antecedents!

Hence I urge that even though the Professor insists on our casting out of our minds the notion of right (as that which is commanded), and the notion of wrong (as that which is prohibited), he has failed to show how these notions ever got there.

(8)

I am unable to read any consistent meaning into the constructive portion of the Professor's article (pp. 7 to 11). Here are some instances of paradox which I offer as an explanation of this inability:

(*a*) On page 7 we read: "The question for ethics is thus to exhibit the working of forces of a specific kind, *not* to call for approval or support for them." I take it to mean that we are *not* to call any of these forces 'good', or worthy of approval; nor any of them 'bad', or worthy of disapproval. But on page 10 we find the author himself calling some forces good and others bad! "*Goods* are found to be forces operating through persons, developing their own methods, fighting with the *evils* of interestedness."[1] While still more explicitly on page 11 the opposition between "proletarian" and "bourgeois ideology" is described as the "struggle between *goods and bads*".

(*b*) Passing over what seems to be one patent inconsistency, we immediately come upon another. Nowhere in the course of his eleven pages has the author given us a standard by which we are to evaluate a "force"; he offers no criterion by which we are to judge whether a force is good or bad; and, moreover, from the nature of the case he cannot have any such standard. For, if human conduct, like stellar conduct, is merely the "working of forces of a specific kind", we can no more distinguish between good and bad human forces than we can between good and bad stellar ones. We can merely point to them and say: "There they are—some one way, some another—all doing precisely what they have to." With what consistency, then, can the author single out one activity, *viz.*, "investigation", and apodeictically assert it to be a "good"? To do so is to forsake his own principles. It is, furthermore, to be guilty of that unforgivable sin with which he charges those who differ from himself—the sin of making gratuitous assumptions of a most pronounced "relativist" kind. Having thus assumed, in spite of the inconsistency, that he is correct in calling "investigation" a good, he infers that "production" is also a good, and draws a number of additional inferences concerning the "bourgeois ideology" of consumption—which steps of reasoning I humbly confess I am unable to follow.

---

[1] The reader will have to peruse pp. 9-10 to grasp the meaning of this sentence. Here I am concerned only with the inconsistency which it involves.

(*c*) On page 10 we are told: "the theory of goods as historical forces enables us to *dispense with the conceptions of end and right,* and with all the confusions that follow in their train." Here the reader is not in darkness; the light shines clear upon the author's assertion that: (i) the notion of end, or objective, may be dispensed with: (ii) the notion of a means as being "right" for an end is not wanted: (iii) these two notions are beset with confusions.

But the very next sentence reads: "Goods are found to be forces operating through persons . . . *fighting* the evils of interestedness."[1] Let us now ask three questions, corresponding to the three assertions listed in the last paragraph above: (*a*) Is there any objective or end, to be secured by fighting the evils of interestedness? If there is not, then why fight them? If there is, then the notion of "end" is not "dispensed with". (*b*) How do the goods "strive to overcome the evils of interestedness"? I submit that they strive to attain this objective by fighting; and then the notion of "right" is not dispensed with; for fighting is the "right" means for attaining the objective. (*c*) Which is the worse confusion: to assert there are no "ends" and no "rights" and yet to rely on them, or to try and get on without them?

In short, why may the Professor, discarding all consistency, speak as though "ends" and "means" and "rights" were real objective things; and yet harry his adversaries who, preserving all consistency, urge that real ends and real means exist, and that our reason can find what means are good for an end?

(9)

A SUMMARY OF CONCLUSIONS.

(*a*) The Professor condemns *all* ethical theories that take any cognizance of ends and means. But his condemnation is pronounced in the face of complete ignorance of the most historic of such theories (*cf.* especially sections 7 and 4 above).

(*b*) The account he gives of his adversaries' position—at least if we include the greatest of the schools which he opposes—is more than misleading. It is false. (*Cf.* sections 4, 3 and 2 above.)

(*c*) Patent logical fallacies can be pointed out in his arguments. (*Cf.* section 6 above.)

---

[1] The reader will have to peruse pp. 9-10 to grasp the meaning of this sentence. Here I am concerned only with the inconsistency which it involves.

(*d*) He can be shown to be self-contradictory. (*Cf.* section 8 above.)

(*e*) He never once defines his term 'good'; gives us no standard by which to decide whether a force is 'good' or 'bad'; yet arbitrarily states that certain activities or "forces" are good and others bad. (*Cf.* section 8 above.)

(*f*) His terminology is ambiguous and therefore confusing, *e.g.*, the reader will find that the word 'good' is used at haphazard for (i) force: (ii) a thing commanded: (iii) a thing desirable as a means to an end. For an illustration of this *cf.* page 8 of his article.

(*g*) His account of how there arises the concept of the forbidden and the ordered (which quite mistakenly he assumes to be the basis of ethics other than his own) is utterly untenable. Interacting "forces" could no more generate a "notion" of "forbidden" than a combination of colours could generate an engine.

(*h*) There is a false statement in each clause of the two sentences which conclude his article! I indicate by bracketed italics how this accusation is justified. The two sentences are these: "The historical and deterministic treatment of goods is, in fact, only one example of the removal of metaphysics from science" (*"Good": "bad": "evil": "necessity" are highly metaphysical conceptions. Yet they are found liberally used by the author in his own treatment of ethical science.*), "the establishment of all scientific objects on a single level of investigation". (*A horse is a "scientific object of investigation". Likewise, the fact that "what is good in social culture has had to fight"*—p. 10—*is another scientific object of investigation. These are NOT on the same level of investigation. My eyes can see one; they cannot see the other.*). "And in thus upholding a logic of events" (*The "realist" ethician explicitly denies that anyone can find any "reason" which explains anything. He cannot therefore "uphold any logic of events". He can merely register the events which occur.*), "realist ethics helps to free philosophy from the confused ethics in which metaphysics is rooted" (*Metaphysics are most emphatically NOT rooted in ethics, "confused" or otherwise. Any sane ethics is rooted in metaphysics.*) "—from the conception of 'higher realities', that is to say, preferred delusions" (*A 'reality' whose existence is as demonstrable as the unseen other side of the moon, is neither a delusion nor a preference.*).

REVIEWS.

AN INTRODUCTION TO THE HISTORY OF THE SOCIAL SCIENCES IN SCHOOLS. By Henry Johnson, being Part II of the Report of the Commission appointed by the American Historical Association to investigate the Social Studies in the Schools. (Scribners. Pp. 145.)

In the September (1932) issue of this Journal appeared a notice of Part I of this Report, written by C. A. Beard and entitled "A Charter for the Social Sciences". Professor Johnson's book is narrower in scope than Mr. Beard's. It is really an account of what past educators and historians have thought about History and its teaching to the young.

Those who know Professor Johnson's work on the teaching of History will not be surprised to find this little book full of interest and meat. He briefly reviews the ideas of historians from Herodotus to Treitschke. These ideas are, from one aspect, a running commentary on the familiar dilemma—should History be narrative or propaganda? Nowadays we claim to have discovered a third course in urging that the aim of History should be scientific, and that narrative and propaganda should be subjected to this end. But it will come as a surprise to many to find this aim of scientific history set forth clearly in the writings of many who are not generally regarded as "modernists". Rousseau asks that Emile should be given "facts and let him decide for himself". Frederick the Great says that "if historians write without liberty to tell the truth their work can only be mediocre, or positively bad . . . one ought to respect less the memories of the dead than truth, which never dies".

Perhaps the most surprising figure in the gallery of critical historians is Joseph Priestley (1733-1804), who is generally remembered as a chemist and the discoverer of oxyen. Priestley, as a tutor to a theological academy, taught History and prepared charts and courses for his pupils. He proposes that the students should be encouraged to ask questions during his lectures. To the objection that this will promote a spirit of impertinence and lead to a loss of discipline, he replies: "Suppose a lecturer should not be able immediately to give a satisfactory answer to an objection which might be started by a sensible student. A tutor must be conscious of his having made very ridiculous pretensions, and having given himself improper airs, if it gives him any pain to tell his class that he will reconsider a subject; or even to acknowledge himself mistaken."

I don't suppose it would be possible to have these words written up, in red letters, as a frieze round every class room, in all schools, colleges, seminaries, universities and places where they teach. It would be a graceful tribute to Priestley and a salutary reminder to all of us.

G. V. Portus.

LE RENONCEMENT, par E. Dupréel, Professeur à l'Université de Bruxelles. (*Archives de la Société Belge de Philosophie.*) Pp. 36.

This original little brochure follows naturally upon Professor Dupréel's previous examination of the notion of Progress, the false idol of modern civilization. Stimulated by democratic theory, by industrial technique, ruthless advertising and wanton, unrestricted desire, modern man has said "Yea" to all that life to-day endeavours to offer to him, or rather to sell to him.

MacTaggart, in one of his essays, pointed out that in living our lives we must limit ourselves. The all-round man must define his line, he cannot be both a great scholar and a great explorer, a great musician and a great surgeon. Some aptitudes must be renounced, some abilities be stifled.

Using Art as his starting point, as it is the most free activity, Professor Dupréel shows that modern art has limited itself. We have not, however, yet begun to apply the doctrine of renunciation to our social and economic life. We still boast of progress, which has with its bewildering expansiveness, its ceaseless temptations, created chaos. The doctrine of renunciation has only been preached by moralists who deemed certain ends to be evil. We in turn must accept the doctrine realizing that it involves the voluntary abandonment, not of something evil, but of many things which might be called good. The ascetic temperament in individuals has often produced renunciation, but now the only effective renunciation must be by a group. The vulgar shout for everything, only by renunciation can a group remain superior to the common herd. Only in this way can real values be upheld.

The conflicts of our society exist largely because everyone wishes to have the same as his neighbour. Professor Dupréel shares many of the sentiments expressed by Henri Bergson in the closing chapter of his latest book, "Les Deux Sources de la Moralité et de la Religion". He stresses, for example, the love of money and money making. Bergson attacks the universal desire for motor cars, Dupréel the obsession for gambling on the stock exchange. Restrictions in the spending of money are not nearly as important as restrictions in making it. Another restriction he urges is that of advertising. Modern commerce, which is a dangerous octopus, suggests to the vulgar all kinds of wants by its lavish, unrestricted and expensive advertisements. The success of a business is judged by its size, like the success of a city. Plato rightly limited the size of his city, and until we do something in this direction we shall not have touched what Marx regarded as the fundamental problem of society (any society socialist or other) which was for Marx not merely capital *v.* labour, but city *v.* country.

Bound up with advertising is fashion, that endless cycle of novelty, so widely imitated that it soon ceases to be a novelty. Plato not only limited his city, but also the activities of his guardians. The only aristocracy of the future will be one which does not worship and follow the vulgar creed of "progress", but renounces the temptations which modern civilization hurls upon the average man, making him the victim of fashion, advertisement, hire-purchase, and of money-getting.

This brochure is an eloquent plea for the simple life to be led not by isolated individuals but by groups, to whom the luxuries of one generation will not be the necessities of the next. This tendency is the curse of modern civilization. Advertising has risen to the emergencies of the economic depression, has surpassed itself in urging us to continue to buy luxuries in order to give employment! The moral and social heroes of to-morrow will refuse to follow the tendency to make necessities of luxuries. Where, we wonder, will they be found?

J. ALEXANDER GUNN.

BOOKS RECEIVED.

FUNDAMENTALS OF THE ESOTERIC PHILOSOPHY. By G. de Purucker, M.A., D.Litt. London: Rider & Co. Price: 38s. (From Robertson & Mullens, Elizabeth Street, Melbourne.)

CITIZENS' ORGANIZATION AND THE CIVIC TRAINING OF YOUTH. By Bessie Louise Pierce. Being Part III of the Report of the Commission on the Social Studies, American Historical Association. New York: Charles Scribner's Sons.

THE NORTHAMPTONSHIRE COMPOSITION SCALE. By G. Perrie Williams, M.A., D.Litt. London: George G. Harrap & Co. Price: 5s.

NORTHOX GROUP INTELLIGENCE TEST. Devised by G. Perrie Williams, M.A., D.Litt. London: George G. Harrap & Co. Price: 3d. Key: 1s. Instructions: 2d.

JOURNALS RECEIVED

MIND. A Quarterly Review of Psychology and Philosophy. Macmillan & Co. Annual subscription: 16s.

Vol. XLII. No. 166. April, 1933. Andrew Seth Pringle-Pattison, 1856-1931: Professor H. F. Hallett. Professor Hallett's *Æternitas* (I): C. D. Broad. The Right of Goodness (II): P. Leon. Logical Constructions (V): John Wisdom. A Simplification of Lewis and Langford's Postulates for Boolean Algebra: E. V. Huntington. A Proof that Pure Induction Approaches Certainty as its Limit: P. T. Maker. Dr. Ross's Criticism of Kant's Theory of Duty: A. T. Shillinglaw.

JOURNAL OF PHILOSOPHY. Published fortnightly. Columbia University, New York. Subscription: 4 dollars a year.

Vol. XXX. No. 2. January 19, 1933. Dr. Whitehead on Perception: Daniel Cory. The Development of James's Pragmatism Prior to 1879: Maurice Baum. No. 3. February 2. Word Portraiture: Virgil C. Aldrich. No. 4. February 16. Non-Being: Raphael Demos. Report of the Ninth Annual Meeting of the Pacific Division of the American Philosophical Association: Donald C. Williams. No. 5. March 2. A Case of the Pathetic Fallacy: D. W. Prall. Logic as Language Habits Versus Logic as Formal Truth: Mary Swabey. No. 6. March 16. Immediate Empiricism and Unity: Bruce W. Brotherson. Report of the Thirty-second Annual Meeting of the Eastern Division of the American Philosophical Association: J. W. Robson. No. 7. March 30. Is Idealism Realism?: James Bissett Pratt. Facts—The Logical Perspectives of the World: Susanne K. Langer.

PHILOSOPHY. Journal of the British Institute of Philosophy. Published quarterly. Macmillan & Co. Subscription: 14s. yearly.

Vol. VIII. No. 30. Plato and Natural Science: G. C. Field. Plato's Theory of Forms and Modern Physics: C. E. M. Joad. Spinoza's Doctrine of Privation: Raphael Demos. The Biological Approach to Philosophy: A. D. Ritchie. Relativity in Ethics: G. R. T. Ross. Right Actions and Motives: P. Leon. Everyday Philosophy of the Turkish People in Stamboul: A. Hilmi Omer.

L'ANNÉE PSYCHOLOGIQUE. Complete in two parts. Price: 120 francs. Edited by Henri Piéron. Paris: Félix Alcan.

Vol. XXXII. 1931. This volume in two parts continuously paged, as usual, consists of original articles followed by a most valuable recension of all the relevant publications. From this one journal alone it is possible to find a reliable orientation in the whole of the current literature of psychology and allied subjects. Twenty-five collaborators have worked to present a review of the world's contribution to psychology during the year 1931. To do this they have examined 141 periodicals published in every language, as well as books. This section of the work goes far to justify the claim that this is probably the most important publication of its kind in Europe. Certainly those engaged in the teaching of psychology should consult it freely. The original articles are:

La sensation chromatique. Données sur la latence propre et l'établissement des sensations de couleur: Henri Piéron. Le travail mental sans mouvement: Marcel Foucault. Les rythmes nerveux et les oscillations de relaxation: Alfred Fessard. L'appréciation du temps chez le rat blanc: F. L. Ruch. Sélection des opératrices de machines comptables: V. J. M. Lahy and S. Korngold. La complexité des impressions de mouvements consécutives d'ordre visuel: G. Durup. Étude expérimentale de la courbe d'apprentissage: A. Chweitzer. Émotivité et chronaxie de subordination: E. Toulouse, G. d'Heucqueville and B. Néoussikine. Quelques phénomènes d'ambivalence et de refoulement dans la psychologie du travail: Eugène Schreider.

JOURNAL OF SOCIAL PSYCHOLOGY. Published quarterly. Clark University Press. Annual subscription: 7 dollars.

Vol. IV. No. 1. February, 1933. Genetic Aspects of Grooming: A Socially Important Primate Behaviour Pattern: Robert M. Yerkes. Studies in the Social Psychology of Science: Richard Müller-Freienfels. Some Characteristics of the Good Judge of Personality: Philip E. Vernon. Stereotypes: Oscar F. Litterer. A Study of the Intelligence of Colored Adolescents of Different Social-Economic Status in Typical Metropolitan Areas: Albert Sidney Beckham. Attitudes to the Decline of the West: Nathan Israeli. Group Estimates of the Divorce Rate for the years 1935-1975: Nathan Israeli.

JOURNAL OF GENETIC PSYCHOLOGY. Published quarterly. Clark University Press. Annual subscription: 7 dollars.

Vol. XLII. No. 1. March, 1933. Form Discrimination in Chimpanzees and in Two-Year-Old Children—I. Form (Triangularity) *per se*: Louis W. Gellermann. Form Discrimination in Chimpanzees and in Two-Year-Old Children—II. Form *versus* Background: Louis W. Gellermann. A Study of Activity and Postures in Infants' Sleep: Dorothy P. Marquis. Twin Resemblances in Motor Skills, and the Effect of Practice Thereon: Quinn McNemar. Differences in Musical Ability in Children of Different National and Racial Origin: Helen E. Sanderson. Behaviour Constancy in Rats: James A. Hamilton and Willis D. Ellis. Persistence and Behaviour Constancy: James A. Hamilton and Willis D. Ellis. Direction Orientation in Children: Wiley F. Smith. A Study of Orientation in a Maze: Joseph G. Yoshioka. A Method of Studying the Character Traits of the Pre-School Child: Mordecai Etziony.

THE HUMAN FACTOR. Published monthly by the National Institute of Industrial Psychology. London: Aldwych House. Price: 2s. 6d. Annual Subscription: £1.

Vol. VII. No. 2. February, 1933. A Third Follow-up of Vocationally Advised Cases (1929): Angus Macrae. Vocational Tests on the European Railways. II: Jacob-Marius Nestor. Biology and Industrial Organization: Leonard P. Lockhart. The Worker's Point of View—XI: The Human Factor in Foremen: W. F. Watson. No. 3, March, 1933. Annual Report for the Year 1932. Everyone interested in applied psychology and in the national importance of it would do well to read these annual reports. The results of a year's work by the Institute are little short of amazing in their range and importance. No. 4. April, 1933. Motion study in the General Electric Company: L. P. Persing. Industrial Psychology Applied to the Sales Force: J. W. Felix. The Worker's Point of View—XII: The Mechanization of the Miner: J. H. Mitchell.

BULLETIN DE L'INSTITUT NATIONAL D'ORIENTATION PROFESSIONNELLE. Published monthly by the Institut National d'Orientation Professionnelle, 41, Rue Gae-Lussac, Paris. Price: 2 francs. Annual subscription: 15 fr.

Vol. IV. No. 6. June, 1932. Contribution à l'étude d'une classification des professions: M. Larcher. Classification des Professions dans le cadre de l'industrie des transports: P. Massiot. No. 7. July, 1932. Essais en vue de l'établissement d'une fiche d'aptitude technique: Mme. Henri Piéron. No. 8, October, 1932. Essais en vue de l'établissement d'une fiche d'aptitude technique: Mme. Henri Piéron.

REVUE DE PSYCHOLOGIE APPLIQUÉE DE L'EST. Nancy, France. Appears bimonthly.

INTERNATIONAL JOURNAL OF PSYCHO-ANALYSIS. Official Organ of the International Psycho-Analytical Association. London: Baillière, Tindall & Cox. Annual subscription: 30s.

Vol. XIV. Part I. January, 1933. The Phallic Phase: Ernest Jones. Homosexuality in Women: Helene Deutsch. The Denial of the Vagina: Karen Horney. The Question of Prognosis in Narcissistic Neuroses and Psychoses: L. Pierce Clark. Family Reactions During a Case of Obsessional Neurosis: Marjorie Franklin.

ARCHIVIO GENERALE DI NEUROLOGIA, PSICHIATRIA E PSICOANALISI. Naples, Francesco Giannini. Annual subscription: 7 dollars.

Vol. XIV. No. 1. March, 1933. Schizophrenia d'innesto con sindrome di Frolich: P. Mercogliano. Importanza della rilevazione grafologica nello studio del giudizio e condotta morale: L. Spotti. Di alcuni subpsicopati "disadatti" nel vivere sociale: F. Del Greco. Ancora alcuni piccoli aforismi psicoanalitici ed altri: M. Levi Bianchini. L'opterapia sessuale negli stati depressivi: P. Jedlowski.

ANNALI DELLA R. SCUOLA NORMALE SUPERIORE DI PISA. Published by the professors of the University of Pisa. Bologna: Nicola Zanichelli. Annual subscription: L. 80.

Series II—Vol. II. Nos. 1-2. La religiosità dell'arte: A. Carlini. L'eredità di Alessandro Magno e l'impero romano: E. Breccia. La persona umana e la vita morale: A. Guzzo. Sulla letteratura dell'età barocca in Germania: G. V. Amoretti. Di una nuova dimostrazione dell'esistenza di Dio: F. Montalto. Il "Sublime" nella storia dell'estetica antica: A. Rostagni.

RIVISTA DI FILOSOFIA NEO-SCOLASTICA. Published by the Faculty of Philosophy of the University of the Sacred Heart. Milan: Piazza S. Ambrogio 9.

Vol. XXV. No. 1. January, 1933. La filosofia religiosa di Luciano Laberthonniere: F. Olgiati. Appunti di polemica antiverroistica sull'intelletto: G. Bruni. Logica ideografica: A. Padoa. Cosmologia e scienze: M. Fatta.

REVUE DE L'INSTITUT DE SOCIOLOGIE. Parc Léopold, Brussels.

Vol. XIII. No. 1. January-March, 1933. L'aspect sociologique de quelques phénomènes biologiques: Paul Brien. Le statut social des jugements de vérité: Chaim Perelman. L'avenir du capitalisme: B. S. Chlepner.

NOTES AND NEWS.

OFFICE-BEARERS OF A.A.P.P. FOR 1933.

President: Dr. A. H. Martin.

Editor of Journal: Professor H. T. Lovell.

Vice-Presidents: Professor John Anderson (Syd.), Professor W. Anderson (Auckland), Professor Boyce Gibson (Melb.), Professor J. A. Gunn (Melb.), Professor T. A. Hunter (Wellington), Professor Scott Fletcher (Brisbane), Professor E. Morris Miller (Hobart), Professor J. McKellar Stewart (Adel.).

Hon. General Secretary: Miss F. Farram.

Hon. Business Secretary: Mr. E. Lund.

Hon. Treasurer: Dr. C. R. McRae.

Hon. Counsel: Mr. C. M. Collins.

Hon. Auditor: Mr. John Farram.

* * * * *

Instead of the usual congress held each month of May in connection with the Annual General Meeting of the Association, local meetings are being held in Melbourne and Sydney to further the interests of the Journal and to increase the membership of the Association. These meetings will consist of two series of popular lectures.

The Melbourne series is as follows:

Monday, May 22: "Dreams". Professor H. T. Lovell. (Professor of Psychology, University of Sydney).

Monday, June 12: "Psycho-Analysis". Mr. W. M. Ball (Lecturer in Psychology and Political Philosophy, University of Melbourne).

Monday, June 26: "Psychology of Clothes". Professor J. A. Gunn (Director of University Extension).

The Sydney series is as follows:

Monday, June 12: "Psychology and Life". Professor H. T. Lovell (Professor of Psychology, University of Sydney).

Tuesday, June 13: "Politics and Life". Dr. G. W. K. Duncan (Assistant-Director of Tutorial Classes, University of Sydney).

Wednesday, June 14: "Economics and Life". Mr. R. B. Madgwick (Lecturer in Economics, University of Sydney).

Thursday, June 15: "Philosophy and Life". Professor John Anderson (Professor of Philosophy, University of Sydney).

For each series the price will be 1/- per lecture, or 2/6 for the course.

* * * * *

The Melbourne University Philosophical Society, which is affiliated with the Australasian Association of Psychology and Philosophy, has for the year 1933 the following office-bearers and syllabus:

OFFICE-BEARERS.

President: Professor W. R. Boyce Gibson, M.A., D.Sc.

Vice-Presidents: Mr. W. A. Merrylees, M.A., B.Litt. (*ex officio*), Mr. W. M. Ball, M.A., Professor J. A. Gunn, B.Sc., M.A., Ph.D., Mrs. O. Warren, M.A.

Secretary: Mr A. H. Norman, Clubhouse, University, N.3.

Treasurer: Miss A. Baldwin.

Committee: Miss K. Duncan, Miss S. Murphy, Mr. G. G. Powell, Mr. G. A. Wood.

SYLLABUS.

Monday, March 27 (at 1.30 p.m., Philosophy Theatre): "What is Philosophy?" Prof. W. R. Boyce Gibson, M.A., D.Sc.
Friday, March 31 (Education Theatre): "Greek Life in the time of Socrates". Miss J. S. W. Webb, M.A.
Friday, April 28: Socrates Evening—Dramatic Readings from Platonic Dialogues.
Friday, May 12: "The Basis of Political Obedience".[1] Mr. W. M. Ball, M.A.
Friday, June 16: "Heredity". Prof. W. E. Agar, M.A., D.Sc., F.R.S.
Friday, July 7: Bergson's New Book—"Religion and Ethics". Prof. J. A. Gunn, B.Sc., M.A., Ph.D.
Friday, August 4: "The Political Philosophy of Marx". Honours Students.
Friday, September 8: Question Evening. Mrs. O. Warren, M.A.
Friday, September 29: "Free Will and Responsibility".[2] Prof. W. R. Boyce Gibson, M.A., D.Sc., and Rev. H. B. Loughnan, S.J.

Unless otherwise stated, the meetings will be held in the University Clubhouse at 8 p.m. Supper is usually provided.

* * * * *

AUCKLAND LOCAL BRANCH.—During the year 1932, the activities of the Auckland Branch of the A.A.P.P. embraced a wide variety of subjects.

The year opened with an interesting paper by Dr. Armitage, dealing with "The Increasing Period of Human Life". Dr. Anschutz next gave a paper on "Mind", in which he outlined an original theory of mind derived from a combination of behaviouristic and neo-realistic views. In a paper entitled "Freud's Critique of Civilisation", Professor Anderson gave a detailed critical analysis of Freud's most recent pronouncements on this subject. This concluded the meetings for the first term.

The second term opened with a paper by Mr. Stewart, M.Sc., entitled "Matter, Mind and Spirituality". Following that Dr. Ranston discussed the latest discoveries of modern scholars anent the Song of Solomon, in a highly interesting paper entitled "Ancient Semitic Erotic Poetry". The next paper, dealing with æsthetic values, was delivered by Mr. Robertson, M.A. At the end of the term, Rev. H. K. Archdall, who has just returned from a trip abroad, gave a public lecture on American Education, in which he presented a penetrating analysis of American educational ideals.

Towards the end of the term, Rev. D. D. Scott gave a highly interesting paper entitled "The Anthropomorphic Reference in Religion". This provided the Branch with matter for discussion during two successive nights. During the Third Term, Mr. Dale, M.A., also gave a paper on "The Ethnology of the Maori". Altogether, the Auckland Branch has had a very successful year, keen discussions being a marked feature of the meetings.

At the annual general meeting, Professor Anderson was elected President for the ensuing year, and Miss Crookes Secretary.

---

[1] See articles by Messrs. W. M. Ball, F. L. McCay and W. A. Merrylees in the AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY, September and December, 1932.

[2] See Professor Gibson, "Freedom and Evil", AUSTRALASIAN JOURNAL OF PSYCHOLOGY AND PHILOSOPHY, June, 1925; also his review of "Hartmann's Ethics", *ibid.*, 1933.